EXHIBIT 6

Berkeley Research Group

Declaration of Chester Hanvey, Ph.D.

IN THE MATTER:

EEOC V. SCHUSTER CO.

Civil Action No: 5:19-CV-4063 (N.D. Iowa)

July 6, 2020

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Executive Summary

1. I have been retained by counsel for Schuster Co. ("Schuster") in the matter *Equal Employment Opportunity Commission v. Schuster Co.* (Civil Action No: 5:19-CV-4063, N.D. Iowa). Specifically, I was asked to review and evaluate the use of an isokinetic[1] muscular strength test to select new Schuster Truck Drivers ("drivers") and provide an opinion on the degree to which the test is job-related and consistent with business necessity. This report summarizes my findings.

2. Personnel selection professionals generally agree that validity is based on an accumulation of evidence supporting the job-related use of a test for a specific purpose. There are several generally accepted approaches for gathering validity evidence. While any single approach may be sufficient for establishing the validity of a test, validation evidence gathered using multiple approaches is preferred when feasible. I applied three approaches to accumulate evidence supporting the validity of an isokinetic muscular strength test for selecting drivers at Schuster.

3. First, I conducted a job analysis to systematically document the physically demanding tasks associated with the job and the level of muscular strength required to perform these tasks. The results of the job analysis show that Schuster drivers are required to perform many physically demanding tasks daily that require the exertion of force exceeding 21 pounds[2]. These physically demanding tasks include performing pre-trip vehicle inspections, cranking a handle to raise or lower the trailer's "landing gear," opening and closing trailer doors, and pulling one's body weight into and out of truck cabs and trailers. Drivers perform additional physically demanding tasks less frequently, such as: releasing the kingpin on the fifth wheel to separate the trailer from the truck, loading or unloading trailers, installing special equipment like tire chains, and positing dolly stands to support the front of detached trailers. The

[1] Isokinetic testing is a commonly-used type of physical abilities tests that "assess the force produced through a specified range of motion at the shoulder, back and knee joints." (Gebhardt & Baker, 2017, p. 281).
[2] As described in more detail in later portions of this report, a job in which employees perform tasks requiring the exertion of 21 or more pounds of force meet criteria to be classified as "light-medium."

results of the job analysis confirm that the driver job meets the criteria for the "light-medium" strength category, which is used to establish the passing score for the isokinetic muscular strength test.

4. Second, I reviewed current scientific and technical literature related to the degree of criterion-validity evidence for physical abilities tests generally, and specifically for employees performing work similar to Schuster's drivers. Physical abilities tests are widely-used for selecting employees into physically demanding jobs.[3] Researchers and practitioners generally agree that the use of physical abilities testing is appropriate for physically arduous jobs, which is estimated to comprise a large proportion of jobs in the United States.[4] Physical abilities are widely used in organizations[5] and there have been several published studies documenting the validity of physical tests for accomplishing job tasks[6] and reducing workplace injuries.[7] One such study was conducted by an external consulting firm for CRT, the testing company used by Schuster to administer the isokinetic muscular strength test. That study documented a statistical relationship between the isokinetic muscular strength test used for Schuster drivers and a reduction in truck driver injuries at two trucking companies, one of which was Schuster.

5. Third, I reviewed Schuster drivers' injury data to evaluate the degree to which the implementation of the isokinetic muscular strength testing had an impact on the cost of driver injuries. The results of this analysis showed an immediate and dramatic reduction in the costs associated with Muscular Skeletal Disorder (MSD) injuries (the types of injuries the isokinetic muscular strength testing is intended to reduce). According to our analyses, the cost associated with MSD injuries for Shuster drivers in 2013 was approximately $573,927. After implementing the isokinetic muscular strength testing in 2014, the cost of MSD injuries dropped to zero from 2014 through 2016 and has remained far below

[3] *See, e.g.,* Gebhardt & Baker (2017); Murphy (2015).
[4] U.S. Bureau of Labor Statistics (2019) estimates that civilian workers work in jobs in the following physical demands categories: Sedentary work (27.0%), light work (33.8%), medium work (28.5%), heavy work (9.3%), very heavy work (1.5%).
[5] Salgado et al. (2001).
[6] Arvey et al (1992); Blakely et al. (1994); Courtright et al (2013); Gebhardt (2000), Gebhardt & Baker (2010a, 2010b), Hogan (1991).
[7] Gillam & Lund (2000); Karwowski & Mital (1986).

the 2013 total for every year since (never exceeding $100,000 in any year since the test was implemented).

6. In this report, I present accumulated evidence from multiple sources, all supporting the validity of the use of an isokinetic muscular strength test for selecting drivers at Shuster. The job analytic data clearly demonstrates that drivers are required to perform a variety of tasks requiring substantial muscular strength, supporting the valid use of a test measuring muscular strength. Published literature and an analysis of injury data at Schuster provide further evidence of validity by demonstrating that the isokinetic muscular strength testing has a meaningful impact on costs associated with driver injuries. Therefore, it is my opinion that the use of the isokinetic muscular strength test is valid for the purpose of selecting drivers at Schuster. A description of the methods and data upon which I relied as the basis of my opinions is provided below.

Expert Qualifications

7. I am an Associate Director in the Labor and Employment Practice at Berkeley Research Group, LLC. (BRG), a global strategic advisory and expert consulting firm. I regularly perform projects related to labor and employment litigation, including allegations of discrimination. In my career, I have worked with over 100 organizations. I have extensive experience designing and executing job analyses, the methodology used to identify the work performed by employees. I have worked with many companies to perform independent reviews of personnel systems, including selection and performance management, to ensure they are valid and non-discriminatory. I have also been retained as an expert witness by plaintiffs and defendants to provide testimony on a range of issues, including the validity of employee selection exams and performance management systems, adverse impact of selection systems, wage and hour compliance, statistical sampling, and damage calculations.

8. I have a Ph.D. in Industrial/Organizational (I/O) Psychology with a minor in quantitative methods (statistics) from the University of Houston. I have published and regularly present my work at professional conferences on topics including employment test validation, job analysis, statistics, and wage

and hour compliance. I am the author of *Wage and Hour Law: Guide to methods and analyses* (2018) and the co-editor of *Practitioner's Guide to Legal Issues in Organizations* (2015). Both books provide practical guidance to Human Resources practitioners and experts in litigation on topics including test validation, the use of physical abilities testing, adverse impact analyses, and wage and hour compliance. A more detailed description of my qualifications, including previous cases in which I have provided expert testimony, can be found in my CV, attached as Exhibit 1.

Background

9. BRG was retained by counsel for Schuster in April 2020. I understood that a lawsuit had been filed against Schuster (*EEOC v. Schuster Co.*) alleging that Schuster's use of physical abilities testing has subjected "a class of aggrieved female job applicants to a sex discriminatory physical abilities test that resulted in those job applicants being denied employment opportunities because of their sex, female, in violation of Title VII."[8]

10. I was also informed that Schuster contracts with a third party, Cost Reduction Technologies (CRT), for the physical abilities testing. CRT specializes in developing and administering isokinetic physical abilities testing to assess whether job candidates possess the physical capabilities required to perform different jobs. The CRT isokinetic muscular strength test includes five tests of physical strength: left leg extension, right leg extension, left should lift, right shoulder lift, and lower back extension. These muscle groups are typically involved in tasks that require lifting, carrying, pushing, and pulling. The results from all five measurements are combined into a composite score, called a Body Index Score (BIS)[9]. An applicant's BIS is intended to predict their ability to safely perform tasks requiring a specific amount of weight/force.

11. A passing BIS is based on the job's strength factor developed by the US Department of Labor and documented in the Dictionary of Occupational Titles (DOT).[10] The DOT groups all jobs into

[8] See First Amended Complaint, filed March 20, 2020.
[9] The specific formula used to calculate the BIS score is proprietary and is therefore not included in this report.
[10] U.S. Employment Service (1991).

one of five strength categories (Sedentary, Light Work, Medium Work, Heavy Work, Very Heavy Work). The strength categories are defined by the amount and frequency of force exerted by workers. For example, medium work is defined as a job in which workers are

> "Exerting 20 to 50 pounds of force occasionally, and/or 10 to 25 pounds of force frequently, and/or greater than negligible up to 10 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Light Work."[11]

12. To ensure that an appropriate passing score is used, the job must be categorized into the correct strength level based on the physical requirements of the job. To increase the precision of testing, CRT created additional categories in between the broader strength categories found in the DOT. CRT's strength categories, the criteria for each, and the associated BIS scores are shown in Table 1.

[11] An online version of the DOT strength factors can be found at: https://occupationalinfo.org/appendxc_1.html#STRENGTH

Table 1. Strength Categories

STRENGTH LEVELS	OCCASIONAL 1 to 100 reps/8hrs	FREQUENT 101 to 300 reps/8hrs	CONSTANT 301 to 500 reps/8hrs	CRT BODY INDEX SCORE
Sedentary	0 - 10 lbs	NEGLIGIBLE.	_____	<100
Sedentary-Light	11 - 15 lbs	7 - 9 lbs	NEGLIGIBLE.	101 TO 126
Light	16 - 20 lbs	10 - 12 lbs	5 - 6 lbs	127 TO 150
Light-Medium*	**21 - 35 lbs**	**13 - 21 lbs**	**7 - 10 lbs**	**151 TO 170**
Medium	36 - 50 lbs	22 - 30 lbs	11 - 15 lbs	171 TO 200
Medium-Heavy	51 - 75 lbs	31 - 45 lbs	16 - 22 lbs	201 TO 225
Heavy	76 - 100 lbs	46 - 60 lbs	23 - 30 lbs	226 TO 253
Very Heavy	>100 lbs	> 60 lbs	> 30 lbs	254 PLUS

*Strength level and BIS of the Schuster driver job

13. Before implementing the physical abilities testing, a Job Task Analysis was conducted by James Jegerlehner, PE, CPE, an external consultant retained to evaluate the physical requirements of the driver job at Schuster. Following the completion of the Job Task Analysis and a comparison to similar jobs in the transportation industry, the job of drivers at Schuster was classified as "Light-medium," which translates into a passing BIS score of 151 or higher. One of the primary goals of my analysis was to evaluate whether the light-medium classification is appropriate for the job.

Overview of Test Validity

14. "Validation" is a technical term used by testing professionals to describe a process of accumulating evidence to support the job-related use of a test.[12] In the context of personnel selection, validity refers to the degree to which evidence supports the accuracy of inferences made regarding some important aspect(s) of work behavior.[13] That is, validity is not a characteristic of a test; rather, it is a

[12] *SIOP Principles* (2018).
[13] *SIOP Principles* (2018).

characteristic of the inferences made regarding the relationship between test scores and one or more work-related outcomes.

15. There are multiple commonly accepted strategies to provide evidence supporting the valid use of a test. Over the past several decades, professional consensus has developed that all validation strategies are tools for answering the same set of questions about the meaning and implications of test scores.[14] In other words, there are not different types of validity, but rather different strategies for gathering evidence of a test's validity for a specific purpose. Each of these strategies individually or in combination can prove useful for evaluating the validity and appropriateness of a test in a specific instance. All strategies for gathering validation evidence are relevant only to the extent they support the inference that a test score predicts subsequent work behavior.[15]

16. Professional standards for accumulating validation evidence are based on scientific and technical literature in the field of personnel selection as well as three primary authoritative sources of guidance that can be relied upon for development, validation, and implementation of an employment selection procedure:[16]

a. *Uniform Guidelines on Employee Selection Procedures* (1978) - Published by the Equal Employment Opportunity Commission (EEOC), the Civil Service Commission (CSC), the Department of Labor (DOL), and the Department of Justice (DOJ). A Question and Answer supplemental document was added in 1979.

b. *The Standards for Educational and Psychological Testing* (2014) – Jointly Developed by the American Educational Research Association (AERA), American Psychological Association (APA), National Council on Measurement in Education (NCME).

c. *Principles for the Validation and Use of Personnel Selection Procedures*, 5th Edition (2018) – Published by the Society of Industrial and Organizational Psychology.

[14] *See APA Standards* (2014) and *SIOP Principles* (2018).
[15] *APA Standards* (2014).
[16] Jeanneret & Zedeck (2017).

17. All of these sources support the position that the use of tests to select employees is permissible when properly supported by validation evidence. This is the case even when a test results in an adverse impact against a protected subgroup.[17] All of these sources also agree that there are multiple approaches for gathering validation evidence, including use of job analysis to document job requirements, the evaluation of external scientific literature demonstrating the validity of a selection procedure in a similar context, and empirical analysis of the impact of a selection procedure on subsequent work behaviors. I designed a study in this case that is consistent with the *Uniform Guidelines*, *SIOP Principles*, *APA Standards,* and scientific and technical literature related to personnel selection, physical abilities tests, job analysis, survey design, statistical analysis, and other relevant areas.

Driver Job Analysis

18. Professional practice and technical literature on the validation of physical abilities tests dictate that similar to other assessments used when making other employment decisions, job analysis is typically used to support the use of a physical test for employment selection.[18] Job analysis is a scientific methodology to gather data that describe various aspects of an organization, including tasks or activities performed, outcomes of tasks and activities, equipment used, and the environment in which the job is performed.[19] The goal of the job analysis is to establish a verifiable link between test components (i.e., muscular strength) and the job requirements.[20] Consistent with professional practice, I conducted a job analysis to identify the physically demanding aspects of the job, the frequency and importance of that work, and the role and amount of muscular strength associated with that work. I designed and conducted, along with BRG colleagues, a job analysis that included several phases to generate data from several

[17] See, e.g., Uniform Guidelines, Section3(A): "The use of any selection procedure which has an adverse impact on the hiring, promotion, or other employment or membership opportunities of members of any race, sex, or ethnic group will be considered to be discriminatory and inconsistent with these guidelines, **unless the procedure has been validated** in accordance with these guidelines, or the provisions of section 6 of this part are satisfied." (emphasis added)
[18] See, e.g., Gebhardt & Baker (2017); Murphy (2015).
[19] Gatewood and Field (2001).
[20] See Gebhardt and Baker (2014).

different sources.[21] The job analysis involved the following activities: reviewing existing written documents about the job, interviewing Subject Matter Expert (SME), conducting direct job observations, measuring required force exertion of specific tasks, and developing and administering a job analysis survey. The job analysis was customized to assess the validity of the use of an isokinetic physical strength test for selecting drivers at Schuster. Each phase of the job analysis is described in the following sections.

Document Review

19. Job analysis typically begins with a review of existing written materials related to the tasks and responsibilities of employees or other relevant work characteristics.[22] Consistent with professional practice, I requested and reviewed a variety of documents related to the driver job at Schuster, which included a job description and the job task analysis completed before the implementation of the isokinetic muscular strength test. A list of all documents reviewed is attached as Exhibit 2. In addition, I reviewed the duties for the driver job found on O*NET for the job of "Heavy and Tractor-Trailer Truck Drivers"[23] and the U.S. Department of Labor's DOT for the job of "Tractor-Trailer Truck Drivers."[24] These sources provided supplemental information regarding the tasks performed by truck drivers generally and the physical abilities required to perform the job. Based on these materials, I generated a preliminary list of tasks ("task list") which included many tasks that may require muscular strength.

Subject Matter Expert (SME) Interviews

20. I interviewed several SMEs to learn about the tasks and responsibilities of the driver job at Schuster, with a focus on the physically demanding aspects of the job. SMEs are commonly relied upon to provide job analysis judgments, particularly in the context of physical abilities test validation.[25] I

[21] See Murphy (2015), Levine et al. (1983).
[22] See, e.g., Gael (1983); Brannick et al. (2007), Levine et al. (1983).
[23] https://www.onetonline.org/link/details/53-3032.00
[24] https://occupationalinfo.org/90/904383010.html
[25] *See* Murphy (2015); Gebhardt & Baker (2017).

requested a meeting with three direct supervisors of drivers (Dispatchers) who have regular and direct interaction with a wide range of drivers. Schuster identified three Dispatchers who met these criteria. The three SMEs included in the study have each worked for Schuster between 3.5 and 27 years and supervise between 40-45 drivers working throughout the United States. Each SME reported that they have daily interaction with the drivers they supervise.

21. I conducted a one-hour phone call with all three SMEs on May 14, 2020. The topics covered during the meeting included SME work history, current role, the organizational structure at Schuster, the tasks and responsibilities of drivers, the physical aspects of the driver position, the nature of safety and potential injuries, and the recommended format and administration of a job analysis survey for drivers.

22. The SMEs provided detailed information about the work performed by drivers, verified the accuracy of information gathered in the document review, and provided additional detail regarding certain tasks and physical demands of the work. The information provided by the SMEs was incorporated into the preliminary task list.

23. The SMEs also provided information about the drivers' work environment that can impact the physical demands of the job.[26] SMEs reported that some tasks are considerably more physically demanding in extremely low temperatures. For example, cranking the trailer landing gear is more difficult when the temperature is low because the moving parts tend to stick. Similarly, opening and closing trailer doors are more physically demanding in high winds because the driver may have to push/pull the door against the force of the wind in addition to the weight of the door.

24. SMEs also reported that drivers nearly always work alone, which is a relevant factor in this context. In work environments in which multiple employees work together, an employee may be able to competently perform their job despite lacking the ability to perform certain tasks well. For example, another employee can assist with particular tasks so that there are only minor (if any) consequences

[26] *See* Gebhardt & Baker (2017).

associated with an employee bring unable to perform a task well. In contrast, Schuster drivers do not have other employees to rely upon to assist them in performing their tasks because they work alone. For nearly all tasks, the driver must perform the task himself or herself to meet the minimum expectations of their job. Further, for many of the physical tasks, there are no degrees of effectiveness in performing the tasks. In other words, most of the tasks have a dichotomous outcome: complete or not complete. There is no such thing as one employee cranking the landing gear "better" than another employee. The trailer is either moved to the necessary height or it is not. If a driver lacks the strength to perform this task, he/she cannot adequately perform the job and is at increased risk of injury.

25. I also interviewed an SME from CRT to learn about the testing process, including the design and administration of the test, the intended use of the testing program, scoring procedures, and the procedures for establishing passing scores. I met with the President of CRT on May 13, 2020, for one hour. During the interview, the SME provided detailed information about the company, isokinetic testing in general, intended use of the isokinetic tests for employment selection, academic literature supporting the use of isokinetic testing in a range of contexts, the Job Task Analysis procedure used to evaluate the strength level associated with a job and determine the appropriate passing score, and the administration and scoring of the test. The information learned during this interview was useful for helping to design a job analysis that collected data on relevant factors of the job.

Driver Job Observation

26. Job observation plays a critical role in a job analysis conducted in the context of assessing physical abilities.[27] Consistent with recommended practice, I designed and conducted a job observation to directly observe many of the physical tasks associated with the job and measure the amount of the strength required to perform specific tasks. To conduct the job observation, I met with a driver on June 20, 2020, in San Diego, CA. The driver has worked as a truck driver for 23 years in total, the past three of which were for Schuster. The driver also has the additional role of driver trainer at

[27] See, Murphy (2015), Gebhardt & Baker (2017).

Schuster, which involves coaching inexperienced drivers on daily tasks including driving, loading, and unloading to ensure they are done correctly and safely. Therefore, he was highly knowledgeable about the tasks performed by and the equipment operated by Schuster drivers, including possible variation between drivers. The truck used for the job observation was a 2020 International Automatic and the trailer was a 2021 Great Dane (empty at the time), which is some of the newest equipment in Schuster's fleet.

27. I collected several types of information during the 2.75-hour job observation visit: I interviewed the driver about the wording of the tasks on the preliminary task list and collected additional detail about each task, I observed the driver performing the tasks, I performed the tasks myself, and I measured the force required to perform each task using a digital dynamometer.[28] For all physical tasks involving more than a negligible amount of force[29], I performed the task and measured the force five times to ensure the measurements were reliable. The average from the five measurements was used.

28. The information learned about the tasks and forces required to complete the tasks was incorporated into the task list. The final task list is attached as Exhibit 3. I also took several photos and videos, showing the physical movements involved in performing many tasks and/or how the dynamometer was used to collect measurements. A selection of relevant photos and video screenshots is provided in Exhibit 4.

29. To ensure that the data I collected during the job observation could be reasonably applied to other Schuster drivers, I also collected data on temperature and wind speed during the observation, the two environmental factors that have the largest impact on muscular strength. Based on weather data from two airports within two miles of the testing site (TIJ and SDM), temperatures were between 62 and 68

[28] A dynamometer is a device used to measure force that is often used for measurement of physical tasks (see, e.g., Murphy, 2015).

[29] A few tasks could not be performed or measured during the job observation because they involve equipment that is located at the customers' facilities (e.g., dolly stand, pallet jack to load/unload). For these tasks, I relied on measurements conducted by a third party with a doctorate degree in Physical Therapy (DPT) who had access to the necessary equipment and experience collecting measurement data in a manner consistent with my procedure. These measurements are noted in Exhibit 4.

degrees and wind speeds were between 4 and 12 mph. Because of the age of the truck and trailer, relatively warm temperatures, and low wind speeds, the strength measurements collected during the observation can be seen as a "best-case scenario" in that the strength required to complete some tasks may be higher in other situations.

Driver Job Analysis Survey

30. Based on the knowledge gained from the document review, SME interview, and job observations, I designed a web-based survey instrument to assess several aspects of drivers' work experiences. The survey asked drivers to report the frequency they personally perform each task, whether the task is required, and the role of muscular strength in performing the task. The survey also asked drivers to report the type of trailer they typically haul[30], the typical distance driven per load[31], and the frequency that they work under relevant environmental conditions.

31. *Pilot Administration*. Following scientific guidelines and recommended practice[32], we pretested the survey to ensure the clarity of survey instructions and questions and to ensure the technical functionality of the survey. The three SMEs who participated in the initial interview completed the pilot version of the survey and provided their feedback in a follow-up phone call. During the pilot interview, the SMEs were asked to identify instructions or questions that were unclear, any issues with the layout of the survey, the appropriateness of the wording of the tasks in the survey, and any technical issues they experienced. Generally, the SMEs confirmed that the survey instructions and response options were clear and understandable, the tasks were worded appropriately, they did not experience any technical issues, and they offered several small suggestions for improvement. Based on their feedback, we made minor

[30] Refrigerated trailers ("reefer") make up the majority of Schuster's fleet and their doors are heavier than non-refrigerated trailers ("drive in"). The trailer used during the Job Observation was a reefer trailer.
[31] Short haul drivers make more frequent stops than long haul drivers. Certain tasks associated with pickups and deliveries may be performed more frequently by short haul drivers. The results of this analysis are discussed in a later section.
[32] Babbie (1990); Gael (1988).

revisions to the survey such as simplifying the wording of the instructions to increase comprehension among the drivers who would be completing the survey.

32. The development steps undertaken to create the survey and pre-testing of the pilot survey followed recommended job analysis practice to ensure that the survey was a reliable and valid instrument for measuring drivers' work experiences.[33] The final survey is attached as Exhibit 5.

33. *Communication Plan and Administration*. I developed and assisted in the implementation of a communication plan to ensure that all drivers received a standardized and accurate message about the survey prior to their participation. I prepared a written script that was distributed by dispatchers to each of their drivers. This script informed drivers that BRG, a third-party vendor, is conducting a project to evaluate the physical requirements to perform the job of driver. Drivers were assured that their responses would have no impact on any driver's employment status in any way and that BRG was only interested in gaining a better understanding of physical demands associated with the driver position. In addition, they were told to complete the survey in a safe location during regular business hours. The survey was sent to all current Schuster drivers via email and administered online in June 2020.

[33] Gael (1983); Gael (1988); Guion (1998); Harvey (1991).

34. To maximize data reliability and validity, I incorporated numerous features into the survey design. Each of these features is consistent with best practices when collecting self-report data[34] and include the following:

a. Instructions and survey questions were worded neutrally;

b. Questions were framed to be simple and concise. The wording of questions was simple and easy to avoid misinterpretation and misunderstanding of the item content.

c. Instructions emphasized the role of a third party in developing and administering the survey;

d. Response options and instructions were included to prevent drivers from "guessing" if they did not know the answer to a question. Drivers were instructed to leave questions blank if they did not know how to answer and several questions also included an option for "I don't know."

e. Drivers were instructed to respond based on their experience in the past 12 months to maximize accurate recall.

f. To detect and eliminate unreliable, dishonest, or random responding, we embedded several "lie items" and "attention check" items into the survey. The lie items are tasks that typically do not involve substantial muscular strength and should, therefore, receive a low rating by participants. The attention check items instruct participants to provide specific responses to during the survey. These are described in greater detail below.

[34] *See, for example*, Babbie (1990), Diamond (2011); Marsden & Wright (2010).

Based on a driver's pattern of responses to these questions, we were able to eliminate unreliable data from the analyses.

g. Logic and branching were built into the online survey tool so that only relevant questions were asked to each driver. This avoided potential confusion and wasted time that can result from asking non-relevant questions.

h. The survey contained a sufficient number of questions to assess the instrument's reliability but was not so lengthy as to cause response errors and random responses due to fatigue.

i. Responses to survey questions were kept confidential to encourage honest responses.

j. The layout of the survey was designed to be "mobile-friendly," as SMEs reported that many drivers would likely complete the survey on a mobile device.

Ensuring Data Quality

35. Consistent with professional standards[35], I performed several steps to ensure that data included in the analysis were of sufficient integrity for me to rely upon. I analyzed the pattern of employee responses to see if there were indications that drivers were responding in a careless, random, or inaccurate manner. First, we embedded several tasks into the survey that most drivers perform but are unlikely to require more than a negligible amount of muscular strength.[36] We reviewed each driver's responses to these questions and eliminated drivers from the dataset if they reported that muscular strength was "essential" for performing any of these three tasks, as this indicates that drivers are either overestimating the role of muscular strength or not responding carefully to the survey items. We eliminated 19 completed surveys for this reason.

[35] American Statistical Association (2018).
[36] The three tasks were: (1) Read and interpret maps to determine vehicle routes, (2) Report delays that may impact delivery times, and (3) Notify supervisor regarding needed truck repairs.

36. To further ensure data quality, I reviewed the results from "attention check" items, which directed the participant to select certain responses throughout the survey.[37] These items enabled me to identify and remove responses from participants who were responding randomly or carelessly. Participants who failed to respond consistent with these instructions[38] were assumed to be responding carelessly and were also removed from the dataset. The attention check items resulted in the removal of 43 completed surveys.

37. Finally, we found that one additional driver completed the survey twice. Only the survey this driver completed last was retained to avoid overweighting the experience of that driver.

38. The application of these data checks provides a high level of confidence in the integrity of the data and provides a sufficient basis to reach conclusions about the work performed by Schuster drivers.[39]

Analysis of Sample

39. After performing all data checks, the final sample contained 90 valid surveys.[40] I also analyzed the sample of drivers who provided valid responses to assess the degree to which they are representative of the current Schuster driver population with respect to sex, age, race, and tenure. Table 2 shows the comparison of the survey sample to the Schuster driver population. These data demonstrate

[37] The two informational items in part A were: (1) For this task, please select "Never," "Not Required," and "Essential." and (2) "For this task, please select "Constantly," "Required," and "Not Needed."
[38] Response from participants who did not provide the directed in response for more than two of the six items were considered invalid.
[39] I was also interested in evaluating the impact of the decision to remove these responses from the dataset. All analyses reported in the following sections were re-run using all responses. The results were nearly identical in almost all cases. In other words, although I removed data that I believed to be unreliable in accordance with best practice, these steps did not meaningfully impact the final conclusions.
[40] There are not widely agreed-upon standards for the proper sample size (see, e.g., Kaye & Freedman, 2011) so professional judgment is typically required to determine whether a sample is sufficiently large. One rule of thumb that is a useful standard for comparison requires a minimum sample size of 30. This is based on the central limit theorem, which has demonstrated measures of central tendency (such as the average) become normally distributed for samples of 30 or more, regardless of whether the population values are normally distributed (Brase & Brase, 2011; Howell, 2010). In addition, the responses rate is consistent with typical job analyses and organizational surveys (see Anseel et al., 2008; Steltz et al., 2008).

that the survey sample is similar to the population on all factors, which indicates that the survey data are not overly influenced by employees in any of these demographic subgroups.

Table 2. Demographic Profiles of Schuster Driver Population and Survey Sample

	US Population (N=374)		Survey Sample (n=90)[41]	
Sex	**Count**	**%**	**Count**	**%**
Male	338	90.4%	75	85.2%
Female	36	9.6%	13	14.8%
Total	**374**	**100.0%**	**88**	**100.0%**
Age	**Count**	**%**	**Count**	**%**
20-29.99 years	38	10.2%	13	14.8%
30-39.99 years	56	15.0%	20	22.7%
40-49.99 years	92	24.6%	17	19.3%
50-59.99 years	123	32.9%	30	34.1%
60-69.99 years	51	13.6%	8	9.1%
70 or more years	14	3.7%	0	0.0%
Total	**374**	**100.0%**	**88**	**100.0%**

Note. As of 6/24/20

Race	**Count**	**%**	**Count**	**%**
Hispanic or Latino	16	4.4%	6	6.8%
White	256	70.3%	63	71.6%
Black or African American	73	20.1%	13	14.8%
Native Hawaiian or Other Pacific Islander	1	0.3%	1	1.1%
American Indian or Alaska Native	6	1.6%	2	2.3%
Two or More Races	12	3.3%	3	3.4%
Total	**364**	**100.0%**	**88**	**100.0%**

Note. Race not available for all drivers.

Tenure	**Count**	**%**	**Count**	**%**
Less than 6 months	110	29.4%	29	33.0%
6-11.99 months	74	19.8%	17	19.3%
1-2.99 years	89	23.8%	26	29.5%
3 or more years	101	27.0%	16	18.2%
Total	**374**	**100.0%**	**88**	**100.0%**

Note. As of 6/24/20

[41] We do not have demographic data for two drivers that completed the survey.

Driver Job Analysis Results

40. The goal of the job analysis is to establish a link between test components (i.e., muscular strength) and the driver job requirements. This link is made by establishing the tasks required to perform the job and the physical demands of those tasks. When these tasks are evaluated in aggregate, the job can be classified into the appropriate strength category. As described previously, the Schuster driver job has been given a "light-medium" strength classification. One goal of this job analysis was to determine whether the job duties and physical demands of the driver job at Schuster are consistent with the "light-medium" strength classification used to establish the BIS cutoff of 151. For a job to be classified as light-medium, it must involve any one of the following:

a. Exerting 21 or more pounds of force occasionally (up to 1/3 of the day), or

b. Exerting 13 or more pounds of force frequently (1/3 to 2/3 of the day), or

c. Exerting greater than negligible force constantly (2/3 of the day or more).

41. Drivers spend the majority of their time driving trucks and are unlikely to perform any other tasks more than one-third of their time. Therefore, I analyzed the job analysis data to determine the force required to accomplish tasks that are performed on at least a daily basis, thus falling in the "occasionally" category.

42. *Tasks performed occasionally that require exerting 21 or more pounds of force*. The results of the job analysis, combined with the measured force associated with specific tasks revealed that there are several tasks performed at least occasionally (daily) by most drivers and require the exertion of 21 or more pounds of force. These tasks are displayed in Table 3.[42] All of these tasks are "required" and involve muscular strength, according to the large majority of drivers.

[42] When data are split by sex, the majority of males and females reported performing all of these tasks at least occasionally, that the tasks are required, and that the tasks involve muscular strength.

Table 3. Tasks Performed Occasionally that Require Exertion of at least 21 Pounds of Force[43]

Task	Average Frequency	Percent who Perform at Least Occasionally (i.e., daily)	Motion	Force Exertion Required (lbs)
Conduct pre-trip vehicle inspections, including raising/lowering grill guard, lifting/lowering hood, and checking fluids.	2.46	96.67	Lift, Push	51.17
Conduct post-trip vehicle inspections, including raising/lowering grill guard, lifting/lowering hood, and checking fluids.	2.31	91.11	Lift, Push	51.17
Raise or lower landing gear to safely secure vehicles.	2.31	83.33	Rotate	40.69
Open or close trailer doors and secure.	2.47	91.11	Pull	34.39
Climb out of truck cab.	2.77	100.00	Pull	43.15 (varies)
Climb into truck cab.	2.78	100.00	Pull	43.15 (varies)
Climb out of trailer.	1.77	57.78	Pull	43.15 (varies)
Climb into trailer.	1.79	61.11	Pull	43.15 (varies)

Note. Frequency Scale: 0=Never, 1=Rarely, 2=Occasionally, 3=Frequently, 4=Constantly.

43. Pre-trip and post-trip inspections involve checking the safety and functionality of multiple parts on the truck and trailer. According to SMEs, drivers are required to perform an inspection at least once a day to comply with Department of Transportation guidelines. The two most physically challenging aspects of this task are lifting the grill guard and then the hood to inspect the engine (e.g.,

[43] See Exhibit 4 for photos for these tasks.

fluid levels). The grill guard is several thick metal bars, similar to a bumper, that are affixed to the front of the truck to protect it. The grill guard is connected with a hinge at the bottom to the truck and must be released and lowered to allow the hood to be lifted. When the inspection is complete, the grill guard is lifted back into place and secured. The force required to lift the grill guard is 51.17 pounds. In addition, the pre-trip and post-trip inspections also require force to lift the truck hood, which can either be done by pulling the hood forward using handles on the front of the hood or pushing the hood up from the side. Pulling the hood from the front is the recommended method according to the driver during the job observation, but pushing up from the side is often easier for many drivers. The force required to push the hood up from the side is 26.96 lbs.[44]

44. Drivers also reported raising and lower landing gear, which are the metal "legs" that extend from the bottom of the trailer to the ground, so the trailer can stand on its own when separated from the truck. The landing gear is raised and lowered by rotating a large metal handle on the side of the trailer. The force required to rotate the handle is 40.69 pounds. However, the necessary force increases as the trailer is raised higher, with one measurement as high as 91.74 pounds. In addition, the trailer was empty during the job observation and measurement. The SMEs report that when performing this task with a loaded trailer, the force required is likely to increase. This was also one of the tasks that SMEs specifically identified as more difficult to perform in extremely cold weather, so in some environments, the force may be even higher than the 40.96 pounds measured during the site visit.

45. Most drivers also reported opening and closing trailer doors daily. Opening the door involves unlocking each door, swinging it open to the outside one at a time, and securing each one to the side of the trailer. Simply pushing the door open requires 12.21 pounds of force but pushing it up against the side of the trailer to secure it requires 39.39 pounds of force.[45] This task was identified by SMEs as

[44] The design of the hood did not allow a measurement of force required to open the hood from the front without damaging the hood. However, opening from the front is reportedly more challenging than pushing the hood up from the side, so it would have likely exceeded 26.96 pounds of force captured from a side opening measurement.
[45] The doors spring slightly away from the side of the trailer, requiring extra force to push them close enough to the side of the truck to secure them using a hook.

more difficult to perform in high winds and may also be more difficult if the trailer is on an incline. Therefore, the force required to perform this task may be even higher than 39.39 pounds in some situations.

46. The final four tasks in Table 3 all involve pulling one's body weight into and out of the truck cab or back of the trailer. The force required to perform this task is dependent on the bodyweight of the person performing the task. During the job observations, I measured the force required to pull myself into the cab as did the driver who was present. My weight is 183 pounds and it required 43.56 pounds of force to pull myself into the cab. The driver self-reported weighing 165 pounds and it required 35.34 pounds of force to pull himself into the cab. Drivers weighing more than 183 pounds would require even more force to perform these four tasks.

47. *Other tasks that require exerting 21 or more pounds of force*. In addition to the tasks that most drivers perform daily, the job analysis identified several additional tasks that are performed less than daily but require an exertion of force exceeding 21 pounds. These tasks are listed in Table 4.

Table 4. Less Frequent Tasks Performed that Require Exertion of at least 21 Pounds of Force

Task	Average Frequency	Percent who Perform at Least Occasionally (i.e., daily)	Motion	Force Exertion Required (lbs)
Pull and release fifth wheel pin to unhook trailer from truck.	1.47	40	Pull	90.70
Load or unload trucks or help others with loading or unloading.	0.52	4.44	Push, Pull	61.40 – 102.00
Install or remove special equipment, such as tire chains.	0.61	4.44	Lift, Carry	48.10
Position or remove dolly stands.	0.67	15.56	Pull, Push, Rotate	34.00 – 56.40

Note. Frequency Scale: 0=Never, 1=Rarely, 2=Occasionally, 3=Frequently, 4=Constantly.

48. As shown in Table 4, the force required to pull and release the fifth wheel pin to unhook the trailer from the truck is 90.70 pounds. This measurement reflects the force needed to manually pull

the release handle.[46] On most equipment, this task is completed using an auto-release button and requires minimal strength. However, if the auto-release feature is not functioning, drivers must possess the strength to complete this task manually to effectively perform their job and avoid the risk of injury.

49. Other tasks such as installing tire chains and loading and unloading trucks also require a substantial amount of force but are performed much less frequently. Installing tire chains is only performed when weather conditions require them, which could be daily during colder months depending on the location of a driver's route. Drivers are required to install four sets of tire chains, with each set weighing close to 50 pounds. However, only one set needs to be lifted/carried at a time, which is why the weight of a single set of chains is listed as the force required.

50. Similarly, loading and unloading the trailer is required by a relatively small number of Schuster's customers, meaning that many drivers do not perform this task or perform it infrequently depending on their assignment.[47] On the other hand, some perform this task more frequently. The trailer loading/unloading process typically involves moving palletized items using a manual pallet jack. The force required to maintain pulling of a loaded pallet jack is 61.40 pounds. However, the force required to initiate movement of the pallet jack is 102 pounds. The force may be even greater if the driver is required to pull the load up a ramp of any other incline, which is reported to be necessary in some instances.

51. Dolly stands are used to support the weight of the front of the trailer if it is separated from a truck.[48] Positioning and removing dolly stands involves pulling the wheeled equipment into place and cranking a handle to raise or lower it to the desired height. The force required to pull the dolly stand into place is 34.00 pounds while the force required to lift the dolly stand is 56.40 pounds. This range is shown in Table 4.

[46] This task requires a driver to reach through the narrow space above the rear truck tire and below the bottom of the trailer. The awkward body position makes this task particularly difficult.
[47] Only 12% of drivers reported that they are required to perform this task.
[48] Only 36% of drivers reported that this task was required, likely reflecting that many drivers do not perform this task.

52. *Work Environments.* The survey also asked drivers to report the frequency that they work in various work environments. This information is included in the survey because the physical demands of the job can be impacted by the environment.[49] In particular, SMEs reported that extremely low temperatures and wind increase the physical strength needed to accomplish certain tasks. In addition, tasks such as installing tire chains are performed only when weather dictates (e.g., ice, snow). Table 5 provides the average frequency that drivers reported working in several different work environments.

Table 5. Average Frequency Drivers Perform Work in Each Environment

Work Environment	Average Frequency
Indoor (e.g., inside a building, truck cab, trailer)	3.09
Outdoor	2.37
Above 85 degrees Fahrenheit	2.50
Below 32 degrees Fahrenheit	2.30
High humidity (i.e., above 70%)	2.40
Rain	2.16
Snow/Ice	2.11
Wind	2.47
Confined spaces (e.g., between truck and trailer, reaching under trailer)	2.03
Areas around moving or hazardous equipment (e.g., trucks, trailer, forklifts)	2.01
Areas at elevated heights (e.g., in cab, in trailer)	2.00
Uneven terrain (e.g., side of road)	1.43

Note. Frequency Scale: 0=Never, 1=Rarely, 2=Occasionally, 3=Frequently, 4=Constantly.

Additional Validity Checks

53. I also analyzed the data to determine whether there was additional evidence that drivers provided meaningful responses. For example, I investigated the range of responses to determine whether drivers tended to report that all/most tasks were performed with high frequency, were required or involved muscular strength. I found that the data reflected a range of frequencies for different tasks, which is consistent with the information provided by SMEs. For example, driving the truck had the

[49] Gebhardt and Baker (2014).

highest frequency (average = 3.03) while the tasks known to only be performed for certain customers or in certain situations were reported to be performed less frequently: Loading and unloading trucks (average = 0.52) and installing or removing special equipment such as tire chains (average = 0.61).

54. A similar pattern was found for the role of muscular strength[50] in performing tasks. Tasks involving lower levels of muscular strength, such as positing the wheel chock, and performing emergency roadside repairs such as changing light bulbs received the lowest ratings (average = 1.46 and 1.63, respectively), while tasks involving a large amount of physical strength, such as raising and lowering the landing gear and climbing into the back of trailers, received the highest ratings (average = 2.46 and 2.40, respectively). The range of responses from participants demonstrates that drivers were able to properly discriminate between tasks performed on both the muscular strength and frequency scales, further demonstrating the quality of the data.

55. Similarly, I compared the pattern of responses from drivers who primarily drive long-haul routes with drivers who primarily drive short-haul routes. Based on feedback from SMEs, I would expect short-haul drivers to perform tasks associated with pickups and deliveries more frequently than long-haul drivers because short-haul drivers make more frequent stops on average. Indeed, the data were consistent with this expectation. Short-haul drivers reported performing the following tasks with greater frequency: Load or unload trucks or help others with loading or unloading and raise or lower landing gear to safely secure vehicles. Also consistent with expectations, long-haul drivers reported spending more time driving on average than short-haul drivers.

Comparison of Job Analysis Results to External Sources

56. In addition to the steps taken to ensure and assess the quality of the survey responses, I also compared the job analysis findings to external sources to evaluate the degree to which they were consistent. Consistency with extent external sources provides further confidence in the accuracy of the job analysis data.

[50] The response scale was 1=Not needed, 2= Helpful, 3=Essential.

57. Table 6 summarizes relevant findings from three reputable external sources: DOT[51], O*NET[52], and The U.S. Bureau of Labor Statistics (BLS) 2018 Occupational Requirements Survey[53]. Each of these sources was created to describe the job requirements for all jobs within the United States and each includes information for the occupation of truck driver. A review of these three sources shows high consistency between the job analysis data and the job requirements for the occupation generally. For example, the Dictionary of Occupational Titles classifies the job as "medium" strength."[54] O*NET identifies the following abilities as important for performing the job: Static Strength, Trunk Strength, Dynamic Strength, and Explosive Strength (each is defined in Table 6). The BLS Occupational Requirements Survey found that more than 76% of drivers are required to lift and carry weight "occasionally" and roughly half are required to push and pull objects with their hands and arms. These data sources not only support the accuracy of the job analysis data but also demonstrate that the physical demands of the work performed by Schuster drivers are comparable to the physical demands of the work performed by drivers at other companies.

[51] https://occupationalinfo.org/90/904383010.html
[52] https://www.onetonline.org/link/details/53-3032.00
[53] https://www.bls.gov/ors/
[54] The Dictionary of Occupational Titles includes broader strength categories and therefore does not have a "light-medium" category.

Table 6. Summary of Physical Demands for Truck Drivers According to External Sources

Source	Occupation	Relevant Information
Dictionary of Occupational Titles	Tractor-Trailer-Truck Driver (904.383-010)	Strength Classification: "Medium"
O*NET	Heavy and Tractor-Trailer Truck Drivers (53-3032.00)	Abilities required (Importance – out of 100) • Static Strength — The ability to exert maximum muscle force to lift, push, pull, or carry objects. (importance: 50) • Trunk Strength — The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing. (importance 47) • Dynamic Strength — The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue. (Importance: 44) • Explosive Strength — The ability to use short bursts of muscle force to propel oneself (as in jumping or sprinting), or to throw an object. (Importance: 13)
Bureau of Labor Statistics 2018 Occupational Requirements Survey	Heavy and Tractor-Trailer Truck Drivers (533032)	Percent of employees with the following physical demands: • Lifting carrying weight is required occasionally: 76.6% • pushing or pulling with hands or arms is required: 49.9% • pushing or pulling is required, with both hands or arms: 49.8%

Criterion-Related Evidence

58. Another potential source of accumulated validation evidence is from examining the statistical relationship between test scores and "important or critical work behavior(s) or work outcomes."[55] This approach is specifically endorsed in the *Uniform Guidelines, SIOP Principles,* and *APA Standards* and each provides guidance on gathering validity evidence using this approach. Below, I describe multiple sources of criterion-related evidence. The first is an evaluation of existing validation research on the use of physical testing for employment selection. Next, I describe an existing validation study showing the statistical relationship between CRT's isokinetic muscular testing and injury reduction

[55] Uniform Guidelines, Section 14(B)(3).

for truck drivers. Lastly, I present data from Schuster showing the reduction in injury costs following the implementation of the isokinetic muscular testing program for new drivers.

Literature Review on Validity of Isokinetic Testing for Selecting Employees

59. According to *SIOP principles,* "an important consideration in many validation efforts is whether sufficient validity evidence already exists to support the proposed uses."[56] The principles go on to state that existing evidence (i.e., published literature) can support the valid use of a test and in some circumstances, existing evidence *alone* is enough to support the valid use of a test. Consistent with this guidance, I reviewed relevant literature to determine the extent to which validity evidence supports the use of physical testing for Schuster drivers.

60. Tests that assess an applicant's job-related physical abilities are widely used in organizations.[57] There have been several published studies documenting the validity of physical tests for accomplishing job tasks[58] and there is a large body of research showing that the risks of injury, accidents, and exhaustion in physically demanding jobs can be substantial.[59] Researchers have demonstrated that tests of muscular strength are among the types of physical tests with the highest relationship to blue-collar jobs and tests used to evaluate shoulder, arm, and torso strength tend to have the highest validity.[60] Other research has found a statistical relationship between isokinetic test scores and a reduction in workplace injuries.[61]

61. A review of published literature shows strong support for the validity of physical abilities in general. This existing evidence provides further accumulated support for the use of test at Schuster.

[56] *SIOP Principles* (2018), p. 6.
[57] Salgado et al. (2001).
[58] Arvey et al (1992); Blakely et al. (1994); Courtright et al (2013); Gebhardt (2000), Gebhardt & Baker (2010a, 2010b), Hogan (1991).
[59] *See, e.g.*, Anderson & Briggs 2008; Karwowski & Marras (1999); Rosenblum & Shankar (2006); Tsai et al. (2005).
[60] Baker & Gebhardt (2012).
[61] Gillam & Lund (2000); Karwowski & Mital (1986).

CRT Validation Study

62. Another possible source for the accumulation of validity evidence is known as "transported" validity evidence. The *SIOP Principles* define transportability as the application of findings from research conducted elsewhere to a current selection situation due to a preponderance of key observable and/or underlying similarities with other validity evidence. The Uniform Guidelines also endorse this form of evidence: "Users may, under certain circumstances, support the use of selection procedures by validity studies conducted by other users or conducted by test publishers or distributors and described in test manuals."[62]

63. Transporting validation evidence should only be done when the prior research is technically sound and there is comparability between the research setting and current job setting in terms of factors such as job content or job requirements, job context, and job applicant group.[63]

64. I reviewed and evaluated a 2014 validation conducted by an external consulting firm and published by CRT ("CRT Validation Study"),[64] demonstrating the statistical relationship between the implementation of CRT's isokinetic muscular strength test and subsequent reduction in costs associated with MSD injuries. The validation study analyzed injury data from drivers at two trucking companies and found statistically significant relationships between the implementation of the isokinetic muscular strength testing program and costs associated with injuries. Schuster was one of the two companies involved in the study,[65] however, Schuster's data accounted for only four MSD injuries, a small fraction of the total injuries included in the analyses. However, this validation evidence is potentially useful for

[62] *Uniform Guidelines*, Section 7(A).
[63] *See Uniform Guidelines and SIOP Principles*
[64] The study is titled "Criterion-Related Validation of CRT's Isokinetic Test" and is listed on Exhibit 2 with the file name "crt validation study.pdf"
[65] The *Uniform Guidelines* state in Section 14(B)(1): "Where appropriate, jobs with substantially the same major work behaviors may be grouped together for validity studies, in order to obtain an adequate sample."

supporting the validity of the isokinetic muscular strength testing program at Schuster, provided that certain conditions are met.

65. To assess whether these conditions were met, I first reviewed the type of testing and the type of jobs included in the validation. The testing program used at the second company in the study is identical to the testing program that Schuster is using and the jobs, both truck drivers, are highly similar.[66] I also reviewed the validation study and found it to be sound and thorough, applying sound data management and statistical techniques to reach conclusions. In addition, it was conducted by a reputable external (neutral) consulting firm, further increasing my confidence in the conclusions. Therefore, I conclude that the validation study may serve as an appropriate source to further accumulate evidence of the validity of the isokinetic muscular testing program for selecting Schuster drivers.

Analysis of Injury Data for Schuster Drivers

66. The CRT isokinetic muscular testing program is designed to reduce the frequency and costs associated with MSD injuries. Physical abilities tests are commonly implemented and validated for the purpose of minimizing workplace injuries and the costs associated with those injuries.[67] To directly assess the effectiveness of the testing, and evaluate criterion-related validity, I review and analyzed data showing the cost of injuries for Schuster drivers between 2011 and 2020. The dataset was provided by counsel for Schuster in an excel file containing 73 rows, which I understand to include all injuries reported by Schuster drivers during this time. Each row represents one injury and includes the employee's name, date of injury, description of injury, and the workers' compensation cost of the injury.

67. To analyze the data, I first reviewed the injury description to determine whether each injury could be considered a Muscular Skeleton Disorder (MSD) injury, which CRT's test is designed to

[66] The validation study states: "Company A and Company B. Company A is an organization in the trucking industry that operates over 600 temperature-controlled trailers and/or vans. Company B operates in the same industry and performs similar work when compared to Company A. Company A has been using isokinetic testing since May 6th, 2013, while Company B has been using it since June 2, 2014."
[67] Murphy (2015); Gebhardt and Baker (2014).

reduce. We used the following definition from by the Bureau of Labor Statistics (BLS) to determine which injuries would be included in the analyses:

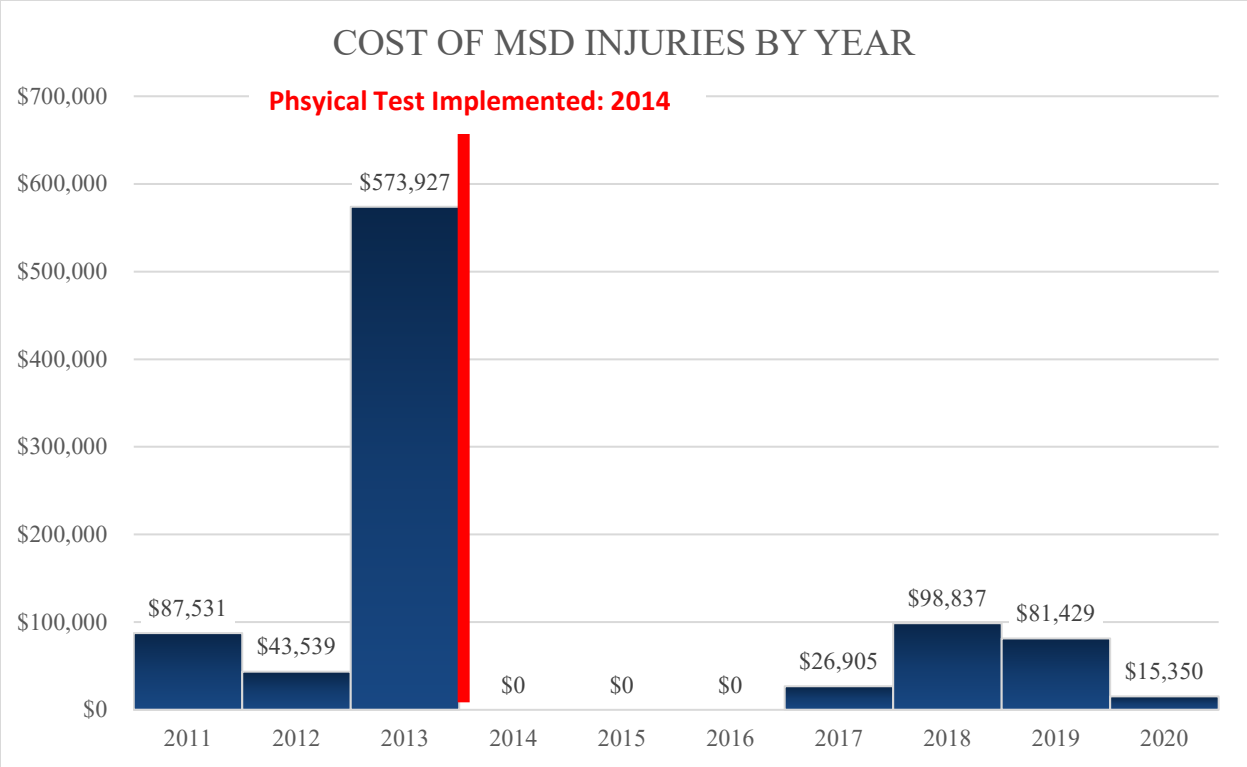
> "Musculoskeletal disorders (MSDs) include cases where the nature of the injury or illness is pinched nerve; herniated disc; meniscus tear; sprains, strains, tears; hernia (traumatic and nontraumatic); pain, swelling, and numbness; carpal or tarsal tunnel syndrome; Raynaud's syndrome or phenomenon; musculoskeletal system and connective tissue diseases and disorders, when the event or exposure leading to the injury or illness is overexertion and bodily reaction, unspecified; overexertion involving outside sources; repetitive motion involving microtasks; other and multiple exertions or bodily reactions; and rubbed, abraded, or jarred by vibration."[68]

68. For example, an injury with a description of "Motor vehicle accident/Knee abrasions" would not be included in the analyses whereas an injury with a description of "Cranking dolly legs & pulling 5th wheel handle/Shoulder strain" would be included in the analyses. To determine which injuries met the criteria for an MSD injury, another BRG consultant and I independently reviewed each injury description and categorized the injury as an MSD injury on not an MSD injury. Both BRG consultants used the same standardized definition of MSD injury and reach a high level of independent agreement (93%). For the small number of discrepancies, both consultants conferred to reach a consensus. This process resulted in 20 MSD injuries between 2011 and 2020. The list of all injuries and their classification are provided in Exhibit 6.

69. The cost of MSD injuries grouped by year is displayed in Figure 1.[69] An inspection of the injury data reflects a clear and drastic reduction in injuries, starting in 2014, the year that Schuster began using CRT's isokinetic muscular test to select new drivers.

Figure 1. Cost of MSD Injuries for Schuster Drivers by Year (2011-2020)

[68] U.S. Bureau of Labor Statistics (2016).
[69] Four MSD injuries are not included in Figure 1. In each instance, the driver was not tested prior to being hired but the injury occurred after 2014. Including these data in the graph would not accurately reflect the impact of the testing program.



70. The structure of the injury data is called a time series, reflecting injury data for a population over a period of time. Researchers often conduct analyses to determine whether an intervention partway through the time series had an impact on the data, known as an "interrupted time series." Many researchers have expressed the position that visual inspection of graphic data is not only sufficient to reach conclusions but also preferred because only large effects will be visually apparent.[70]

71. Performing statistical analysis of the injury data is not feasible or recommended with this dataset. In other criterion-validation studies, the goal of the study to assess the impact of a selection procedure on an outcome such as job performance, in which all employees have data. In contract, injuries only occur for a subset of the employee population and they occur irregularly. Because of the relatively small number/cost of injuries, particularly since 2014 and the structure of the data, many statistical analyses options are not feasible. Many of the statistical analysis options for interrupted time-series data,

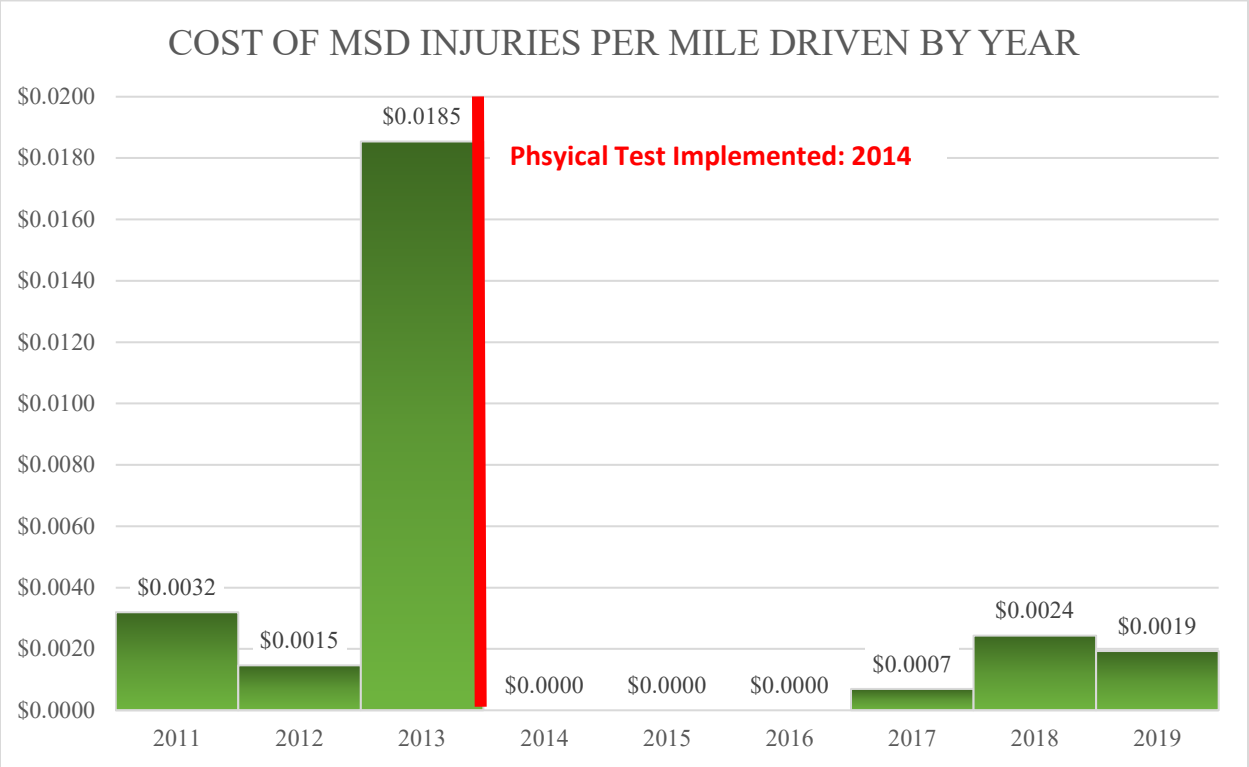
[70] Shadish, Cook, & Campbell (2002).

for example, recommended 100 or more data points provide accurate results.[71] Therefore, I was not able to run statistical models with these data and instead rely on the depiction of the data.

72. I also investigated whether alternative plausible explanations existed for the sudden reduction in injuries. Specifically, I considered whether other changes occurred at the same time the isokinetic muscular test was implemented at Schuster. For example, I asked SMEs about changes to Schuster's safety policies or procedures or equipment that may have changed since 2011. SMEs reported that Schuster has, and continues to, update its equipment and looks for ways to increase employee safety. However, these changes have been consistent and gradual, and no SMEs were able to identify any major changes that occurred in or around 2014, thus ruling out this option as an alternative explanation for the results. I also considered whether the number of employees or miles driven per employee (i.e., opportunities for an injury to occur), decreased significantly around 2014. To the contrary, I found that both employee count and the total number of miles driven has steadily increased every year since 2011. This finding provides additional support for the impact of the isokinetic muscular strength testing program because the cost of injuries has dramatically decreased at the same time the number of employees and miles driven has steadily increased. Figure 2 shows the cost of injuries per mile driven, which shows an even more dramatic reduction in injuries when the isokinetic muscular strength testing was implemented.

[71] The number of data points could, in theory, be increased by examining the number of injuries by smaller time units such as quarter, month, week or even day. However, the resulting dataset would be highly skewed, and the structure of the data combined with the sample size would not allow for meaningful statistical analyses to be run (*see, e.g.,* Hair et al., 2018).

Figure 2. Cost of MSD Injuries Per Mile Driven for Schuster Drivers by Year (2011-2020)



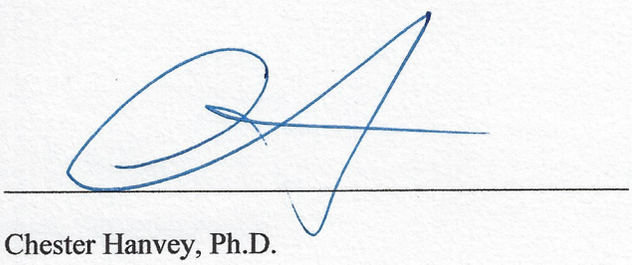
Conclusion

73. I was retained in this matter review and evaluate the use of an isokinetic muscular strength test to select new Schuster drivers and provide an opinion on the degree to which the test is job-related and consistent with business necessity. Based on my review, I conclude that there is substantial evidence for the validity of an isokinetic muscular strength test for selecting new drivers at Schuster. This conclusion is based on data collected in accordance with the *Uniform Guidelines* and other professional standards. Job analysis data provided systematic data to document tasks drivers are required to perform daily which require a substantial amount of physical strength (i.e., exceeding the 21 pounds of force required to meet the criteria for "light-medium"). In addition, a review of published literature demonstrates the validity of physical abilities tests generally, and an existing validation study provides statistical evidence that the implementation of the isokinetic strength test reduces the costs of injuries for truck drivers. A review of injury data from Schuster shows a large decrease in costs associated with

injuries when the isokinetic strength test was implemented. Based on the evidence described in this report, I conclude that there is strong support for the validity of the isokinetic strength test for selecting new drivers at Schuster and that the use of the test is job-related and consistent with business necessity.

BRG is compensated at a rate of $480/hour for this report. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on July 6, 2020, in San Diego, CA.



Chester Hanvey, Ph.D.

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EXHIBIT 1

CHESTER HANVEY, PH.D.
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SUMMARY

Chester Hanvey provides expert testimony and consulting services related to labor and employment matters. Dr. Hanvey has worked with more than 150 organizations across a range of industries including public and private sectors. He specializes in designing and conducting job analyses, conducting statistical analyses, and reviewing personnel selection systems to evaluate wage and hour compliance, appropriateness of class certification, allegations of employment discrimination, and damages.

He has authored books, chapters, and scholarly articles and regularly presents his work at professional conferences on topics including wage and hour litigation, class certification, and statistical analyses. Most notably, he is the author of *Wage and Hour Law: Guide to Methods and Analysis* (2018) the co-editor of *Practitioner's Guide to Legal Issues in Organizations* (2015). Both books provide practical guidance to Human Resources practitioners and experts working in areas of employment law that are commonly litigated. His experience includes the following issues:

Wage and Hour

- FLSA and State Exemptions
- Employment Status (e.g., Independent Contractor)
- Off-the-Clock Work (e.g., pre/post shift work, Security Checks, Donning/Doffing)
- Meal and Rest Break Compliance
- Damages Estimates (e.g., unpaid time, overtime, penalties, interest)
- Statistical Issues (e.g., class certification, sampling, time clock policies)

Discrimination

- Adverse Impact Analysis
- Test Validation (Public and Private sector)
- Performance Management
- Compensation Equity
- Physical Abilities Testing
- Disabilities (e.g., Essential Functions)

EDUCATION

Ph.D. Industrial/Organizational Psychology (Emphasis in Quantitative Methods), University of Houston, 2011.

M.A. Psychology, University of Houston, 2008.

B.A. Psychology (Minor: Spanish), University of Texas at Austin, 2005.

PRESENT EMPLOYMENT

2015-Present **Associate Director**
Berkeley Research Group, Emeryville, CA

PREVIOUS EMPLOYMENT

2014-2015 **Senior Managing Consultant**
Berkeley Research Group, Emeryville, CA

2012-2014 **Senior Consultant**
Lamorinda Consulting, LLC., Orinda, CA

2008-2012 **Consultant**
Lamorinda Consulting, LLC., Orinda, CA

2008 **Instructor**
University of Houston, Houston, TX

2007-2008 **Teaching Fellow**
University of Houston, Houston, TX

2007-2008 **Consultant (Independent Contractor)**
Lamorinda Consulting, LLC., Orinda, CA

2006 **Consultant (Independent Contractor)**
Development Dimensions International, Inc. (DDI), Bridgeville, PA

PROFESSIONAL AFFILIATIONS

Society of Industrial and Organizational Psychology (SIOP), Member
American Psychological Association (APA), Member

SERVICE

SIOP Visibility Committee, Branding Subcommittee Chair (2018-2019)
SIOP Visibility Committee, Branding Subcommittee Member (2015-2018)
SIOP Speed Mentor, Topic: Legal Issues (2014)
SIOP Conference Submission Reviewer (2011-Present)
Southwest Academy of Management Conference Reviewer (2008)

EXPERT WITNESS DISCLOSURES

Guzman-Lopez v. The American Bottling Co., Case No: 2:19-cv-04358-R-GJS, C.D. Cal.

Equal Employment Opportunity Commission v. Dolgencorp LLC. (2018), Case No. 1:13-cv-04307, N.D. Ill.

Hootselle, et al. v. Lombardi, et al. (2018), Case No: 12AC-CC00518, Mo. Cir. Ct., Cole County.

Cope v. Let's Eat Out, Inc. et al. (2017), Case No: 6:16-cv-03050, W.D. Mo.

Badillo v. SG Labor, Inc. (2017), Case No.: BCV-15-100192-SPC, Cal. Super. Ct., Kern County.

Soares v. State of California, et al. (2017), Case No. 2:16-CV-00128-WBS-EFB, E.D. Cal.

Berg v. Canadian Hockey League, et al. (2016), Court File No. CV-14-514423, Ontario Superior Court (Canada).

Davenport v. Charter Communications (2016), Case No. 4:12-cv-00007-AGF, E.D. Mo.

Walter et al. v. Western Hockey League, et al. (2016), Court File No. 1401-11912, Court of Queen's Bench of Alberta (Canada).

Stitt, et al. v. San Francisco Municipal Transportation Agency, et al. (2016), Case No. C-12-03704-YGR, N.D. Cal.

Johnson et al. v. The City and County of San Francisco (2015), Case No. CV 09-5503 JSW, N.D. Cal.

Clayton v. Waste Recycling Services, Inc. (2014), Case No. 3:14-cv-00262-N, N.D. Tex.

PUBLICATIONS

BOOKS

Hanvey, C.M. (2018). *Wage and Hour Law: Guide to Methods and Analysis*. New York, NY: Springer.

Hanvey, C.M., & Sady, K.G. (Eds.) (2015). *Practitioner's Guide to Legal Issues in Organizations*. New York, NY: Springer.

BOOK CHAPTERS

Hanvey, C.M., & Sady, K. (2020). Changes in the Legal Landscape. In B. Hoffman, M. Shoss, & L. Wegman (Eds.), *The Cambridge Handbook of the Changing Nature of Work* (Cambridge Handbooks in Psychology, pp. 154-172). Cambridge: Cambridge University Press.

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ARTICLES

Hanvey, C.M. (2020). New Wage and Hour Legislation in 2020. *The Industrial-Organizational Psychologist,* 57(4).

Arnold, E.B. & **Hanvey, C.M.** (2020). Compliance with the DOL's New Overtime Rules: The Exemption Job Analysis Update. *Journal of Compensation and Benefits,* January/February, 30-42.

Arnold, E.B. & **Hanvey, C.M.** (2019). Compliance with the DOL's New Overtime Rules: The Exemption Job Analysis. *BRG Review*.

Arnold, E.B. & **Hanvey, C.M.** (2019). FLSA Exemption Update 2019. *Journal of Compensation and Benefits*, May/June, 5-16.

Hanvey, C.M. (2018). FLSA Revisions are permanently dead, at least temporarily. *The Industrial-Organizational Psychologist*, 55(3), 12-16.

Hanvey, C.M., & Arnold, E.B. (2017). FLSA Exemption Update: Focus on the Duties Test. *Journal of Compensation and Benefits,* November/December, 5-13.

Hanvey, C.M., & Arnold, E.B. (2016). Are your employees overtime-eligible? *Journal of Compensation and Benefits,* November/December, 20-27.

Banks, C.G., & **Hanvey, C.M.** (2016). Wage and Hour Litigation Developments and Trends. *The Industrial-Organizational Psychologist*, 53 (3), 80-87.

Dubin, D.F., & **Hanvey, C.M.** (2015). Criterion-Related Validity: Strategies for Addressing Supervisor Rating Errors. *Quarterly: A publication of the Personnel Testing Council of Metropolitan Washington, X (2)*, 5-8.

Hanvey, C.M., & Arnold, E.B. (2012). Nature of the Work: On-Duty Meal Periods. *HR Advisor: Legal and Practical Guidance,* January/February, 20-28.

Hanvey, C.M. (2012). Job Analyses to Study FLSA Exemption Misclassification. *Quarterly: A publication of the Personnel Testing Council of Metropolitan Washington, VIII* (1), 6-9.

ONLINE PUBLICATIONS

Arnold, E.B. & **Hanvey, C.M.** (In press). Mitigating the Compliance Risks of a Remote Workforce. *Talent Management and HR*.

Hanvey, C.M. (2020, April 9). A strategy for validating background checks could save employers from legal exposure. *Thinkset*.

Hanvey, C.M. (2020, April 2). Employee Exit Searches: Stay Compliant and Avoid Liability. *HR Daily Advisor*.

Arnold, E.B. & **Hanvey, C.M.**, Jelinek, K. (2020, March 27). What Changes to the FLSA Exemption Salary Threshold Mean for Retailers. *TotalRetail.*

Arnold, E.B. & **Hanvey, C.M.** (2019, August 22). Planning for Possible California Contractor Classification Changes. *Law360.*

Arnold, E.B. & **Hanvey, C.M.** (2019, April 2). Assessing Employee Exemption under DOL Overtime Regulations. *Law360.*

Arnold, E.B. & **Hanvey, C.M.** (2019, January 14). Tip Credits: Methods for Measuring Employee Work Time. *Law360.*

Arnold, E.B. & **Hanvey, C.M.** (2018, August 14). DOL provides the latest guidance on employee classification. *Daily Journal.*

Arnold, E.B. & **Hanvey, C.M.** (2018, August 8). California Employer's Guide to Tracking Off-The-Clock Tasks. *Law360.*

WHITE PAPERS

Arnold, E.B. & **Hanvey, C.M.** (2017). *Suitable Seating: Totality of the Circumstances Inquiry* [white paper]. Emeryville, CA: Berkeley Research Group.

Hanvey, C.M., & Arnold, E.B. (2016). *Evaluating Employee Exempt Status According to Revised FLSA Exemption Criteria* [white paper]. Washington, DC: Berkeley Research Group.

OTHER PUBLICATIONS

Arnold, E.B., & **Hanvey, C. M.** (2016, April 29). Tools for Studying Your Employees' Duties. *Five on Friday.* [Web log post]. Seyfarth Shaw LLP.

SPEAKING ENGAGEMENTS

CONFERENCE PROCEEDINGS

Hanvey, C.M. (2020, March). Applicability of Corporate Culture Research in Employment Litigation. In P. Morrel-Samuels (Chair), *Issues at the Intersection of Recent Case Law and Research Psychology: Discrimination, Sexual Harassment, Class Cert and Corporate Culture.* Symposium presented at the American Psychology-Law Society conference, New Orleans, LA.

Hanvey, C.M. (2019, April). Chair, *Grasping at Straw Men: Implications of Novel Title VII Allegations.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), National Harbor, MD.

Hanvey, C.M. (2018, August). Chair, *Employment Practices in the Tech Industry: Opportunities and Risks.* Symposium presented at the American Psychological Association (APA) Annual Convention, San Francisco, CA.

Hanvey, C.M. (2018, April). Panelist, *What, Essentially, is an Essential Function? ADA-Compliant Job Analysis Best Practices.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Chicago, IL.

Hanvey, C.M. (2018, April). Panelist, *Dos and Don'ts: Thriving as PhD, Masters, and Undergraduate Students.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Chicago, IL.

Hanvey, C.M. (2017, April). Chair, *Physical Abilities Testing: Lessons Learned in Test Development and Validation.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Orlando, FL.

Hanvey, C.M. (2017, April). Panelist, *Dos and Don'ts: Thriving as PhD, Masters, and Undergraduate Students 3.0.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Orlando, FL.

Hanvey, C.M. (2016, April). Panelist, *Implications of Revisions to FLSA Exemptions for Organizations and Employees.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Anaheim, CA.

Hanvey, C.M. (2016, April). Application of Bayesian Statistics to Wage and Hour Litigation. In K. Sady (Chair), *Beyond Frequentist Paradigms in Legal Scenarios: Consideration of Bayesian Approaches.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Anaheim, CA.

Hanvey, C.M. (2016, April). Panelist, *Do's and Don'ts of Graduate School: Surviving and Thriving 2.0.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Anaheim, CA.

Hanvey, C.M. (2015, April). Panelist, *Performance Appraisal: Balancing Business Needs and Legal Defensibility.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Philadelphia, PA.

Dubin, D.F., & **Hanvey, C.M.** (2015, April). Analyzing Nested Data in Criterion-Related Validation. In K. Sady & D. Dubin (Co-Chairs), *Faces in a Crowd: Data Aggregation Issues in Legal Scenarios.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Philadelphia, PA.

Hanvey, C.M. (2015, April). Panelist, *Do's and Don'ts of Graduate School: Surviving and Thriving.* Panel Discussion presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Philadelphia, PA.

Hanvey, C.M. (2014, May). Evaluating "Statistically Significant" Within-Title Variability. In C. Hanvey (Chair), *Within-Group Variability: Methodological and Statistical Advancements in the Legal Context.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Honolulu, HI.

Hanvey, C.M. (2014, May). Chair, *Within-Group Variability: Methodological and Statistical Advancements in the Legal Context.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Honolulu, HI.

Hanvey, C.M., Banks, C. G. & Arnold, E. B. (2013, April). Appropriate Analyses at Different Stages of a Class Action Lawsuit. In C. Hanvey & K. Sady (Co-Chairs), *I-O in the Legal Context: Inconsistencies in Understanding and Application.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Houston, TX.

Hanvey, C.M. & Sady, K. (2013, April). Co-Chairs, *I-O in the Legal Context: Inconsistencies in Understanding and Application.* Symposium presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), Houston, TX.

Hanvey, C.M., Arnold, E. B. (2012, August). Nature of the Work: On-Duty Meal Periods**.** In C. Hanvey (Chair), *Innovation in Job Analysis: Creative Solutions to Unique Challenges*. Symposium presented at the American Psychological Association (APA) Annual Convention, Orlando, FL.

Hanvey, C.M., (2012, August). Chair, *Innovation in Job Analysis: Creative Solutions to Unique Challenges*. Symposium presented at the American Psychological Association (APA) Annual Convention, Orlando, FL.

Hanvey, C.M. (2012, April). Chair, *Job Analysis in a Legal Environment.* Panel Discussion conducted at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), San Diego, CA.

Hanvey, C.M., Campion, J. E., Sady, K. (2009, April). *Juror Decisions in Wrongful Termination Cases: A Multi-Level Justice Perspective***.** Interactive Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology (SIOP), New Orleans, LA.

WEBINARS

Hanvey, C.M. (2018, October). *Current and Future State of Wage & Hour Laws*. Webinar presented by intuit QuickBooks.

Arnold, E.B. & **Hanvey, C.M.** (2017, June). *Use of Expert Witnesses in Wage and Hour Litigation*. Webinar presented to Carothers DiSante & Freudenberger LLP.

SEMINARS AND PRESENTATIONS

Arnold, E.B. & **Hanvey, C.M.** (2017, June). *Maintaining Compliance with Wage & Hour Law*. Presented to The Conference Board: Labor and Employment Law Council, New York, NY.

Arnold, E.B. & **Hanvey, C.M.** (2017, May). *Operationalizing and Measuring Key Concepts in Wage and* Hour. Presentation to the Wage and Hour Defense Institute (WDHI), Columbus, OH.

Arnold, E.B. & **Hanvey, C.M.** (2017, April). *Operationalizing and Measuring Key Concepts in Wage and* Hour. Paul Hastings Lunch Presentations, San Francisco, CA.

Arnold, E.B. & **Hanvey, C.M.** (2017, February). *Fair Pay: Is Your Company at Risk?* Presentation with Miller Law Group, San Francisco, CA.

Arnold, E.B. & **Hanvey, C.M.** (2017, February). *Fair Pay: Is Your Company at Risk?* Presentation with Miller Law Group, Palo Alto, CA.

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7/05/20

EXHIBIT 2

Documents Received

No.	File Name
1	(1) Complaint.pdf
2	(20) First Amended Complaint.pdf
3	(20) First Amended Complaint.pdf
4	(21-1) Trial Management Order for Civil Bench Trial.pdf
5	(23) Answer to Amended Complaint.pdf
6	(9) Answer.pdf
7	A Study of the Effects of isokinetic Pre-employment.pdf
8	Amended EEOC Complaint.pdf
9	answer question no. 2.pdf
10	Answer to Question No. 4-paginated.pdf
11	Answer to Question No. 6 - Part 1.pdf
12	Answer to Question No. 6 - Part 2.pdf
13	Body Index Score (BIS).doc
14	Body Index Score (BIS).doc
15	Certificate Sheet for Supp A to I - Signed.pdf
16	Comp Claims 2012 to date.pdf
17	Correlation vs Simulation.pdf
18	CRT Memorandum of Documentation Appendices 102006.pdf
19	CRT Schuster Validation Loss Data Mar 2010_Feb 2017 020917 060420.xlsx
20	crt validation study.pdf
21	Determination.pdf
22	docs to produce with RFP 021720.PDF
23	Driver List 6-22-20.xlsx
24	Dynamic Strength Correlations Female vs Male for NASA.pdf
25	eeo response - final 042315.pdf
26	EEO-1 Numbered.pdf
27	EEO-1 Self Report.pdf
28	EEOC Complaint.pdf
29	EEOC Schuster Analysis 14-20.xlsx
30	File from Client - Info from Ins.pdf
31	first supplemental response to rfpd no. 13.pdf
32	George_Schuster do file.do
33	George_Schuster Report
34	George_Schuster Report.pdf
35	George_Schuster Report.zip
36	job description.pdf
37	job task analysis.pdf
38	LTF EEOC Conciliation - Offer.pdf
39	LTF US Equal Employment Opportunity - request for info.pdf
40	ltt carvill re validation 090418.pdf
41	ltt eeoc re conciliation - final 052318.pdf
42	ltt eeoc re conciliation 080519.pdf
43	ltt eeoc re conciliation 081319.pdf
44	ltt eeoc with validation study 072518.pdf
45	ltt schultz with schuster analysis 14-20 contact info (2) 042420.pdf
46	medium vs. light medium emails.pdf

Documents Received

No.	File Name
47	Move Pallet Jack in Trailer.doc
48	our first supplemental answers to interrogatories.pdf
49	Our Response to Requests.pdf
50	our second supplemental response to rfpd no. 13.pdf
51	response to supplemental request for documents 061517.pdf
52	RM Insight ASSE 092010.pdf
53	safety information.pdf
54	schuster analysis 14-20 - contact info (2).xls
55	Schuster Analysis 14-20 - Contact Info.xlsx
56	Schuster Analysis 14-20 - Contact Info.xlsx
57	Schuster Analysis 14-20.xlsx
58	Schuster CBCS WC Loss Run.xls
59	Schuster O_CT Losses 2011-2020 (1).xlsx
60	Scientific Treatise on Isokinetics 042004-1.pdf
61	Soderberg Job Content Matching and Isokinetics 2006.pdf
62	Soderberg Testing Methods Validity Paper-2002.pdf
63	U.S. DOL and CRT Strength Levels (1).doc
64	U.S. DOL and CRT Strength Levels.doc
65	WhitePaperPhyCap.pdf
66	Workers Compensation Loss Run.xls
67	CURRICULUM VITAE.doc

EXHIBIT 3

Item	Task Description	Include in Survey	Type of Motion	Measurement	Average Force
1	Secure cargo for transport, using load locks, or straps (depending on trailer).	Yes	Climb, lift, carry, squeeze	Scale to measure the weight of the load lock. To access the load lock, one also has to climb up to back of cab. Force to squeeze closed is an alternate measure.	10.80
2	Load or unload trucks or help others with loading or unloading.	Yes	NA	Not measured during job observation, task only occurs at client site. Measurement provided by 3rd party. Maintaining pulling shown here, initiating pulling is an alternate measure.	61.40
3	For this task, please select "Never," "Not Required," and "Essential."	Attention Check	NA		
4	Position or remove dolly stands.	Yes	NA	Not measured during job observation, task only occurs at client site. Measurement provided by 3rd party - pulling stand out from under trailer. Force to pull shown below. Lifting is an alternate measure	34.00
5	Position wheel chock.	Yes	Lift, carry	Dynamometer - To lift one item.	13.64
6	Read and interpret maps to determine vehicle routes.	Lie Item	NA		
7	Drive truck to load or unload location.	Yes	Rotate	Dynamometer - Rotated wheel 360 degrees to one side, back to starting position, then 360 degrees in the other direction.	11.21
8	Climb into truck cab.	Yes	Pull	Dynamometer - Measured getting into cab pulling on hand rail. Same force applies to entering/exiting the cab and trailer.	43.16
9	Climb out of truck cab.	Yes	Pull	Dynamometer - Measured getting into cab pulling on hand rail. Same force applies to entering/exiting the cab and trailer.	43.16
10	Climb into trailer.	Yes	Pull	Dynamometer - Measured getting into cab pulling on hand rail. Same force applies to entering/exiting the cab and trailer.	43.16
11	Climb out of trailer.	Yes	Pull	Dynamometer - Measured getting into cab pulling on hand rail. Same force applies to entering/exiting the cab and trailer.	43.16
12	Raise or lower landing gear to safely secure vehicles.	Yes	Rotate	Dynamometer - Trailer was empty. When measured after cranking trailer up several rotations, force increased to 91.74 lbs.	40.69
13	Open or close trailer doors and secure.	Yes	Pull, Push	Dynamometer - Force to swing door completely open and push against side of trailer to lock in place was measured. Only swing the door open was also included as an alternate measure.	34.39
14	Pull and release fifth wheel pin to unhook trailer from truck.	Yes	Pull	Dynamometer - Pulled handle manually.	90.70
15	Release trailer tandem locks to adjust weight.	Yes	NA	Not measured during job observation, trailer does not have manual tandem lock release. Measurement provided by 3rd party.	2.64
16	Position or remove air hoses between truck and trailer.	Yes	NA	Not measured.	
17	Report delays that may impact delivery times.	Lie Item	NA		

Item	Task Description	Include in Survey	Type of Motion	Measurement	Average Force
18	Conduct pre-trip vehicle inspections, including raising/lowering grill guard, lifting/lowering hood, and checking fluids.	Yes	Lift, Push	Dynamometer - Force to lift the grill guard is shown. Also collected an alternate measure to lift the hood by pushing open from the side (easier way to lift it but not the "correct" way). Not possible to measure the hood lift from the front (proper way) because there is nowhere to attach dynamometer without scratching paint on hood.	51.17
19	Conduct post-trip vehicle inspections, including raising/lowering grill guard, lifting/lowering hood, and checking fluids.	Yes	Lift, Push	Dynamometer - Force to lift the grill guard is shown. Also collected an alternate measure to lift the hood by pushing open from the side (easier way to lift it but not the "correct" way). Not possible to measure the hood lift from the front (proper way) because there is nowhere to attach dynamometer without scratching paint on hood.	51.17
20	Fuel truck.	Yes	Lift	Not measured - no gas pump present.	
21	Perform basic vehicle maintenance tasks, such as adding oil, fuel, or radiator fluid.	Yes	Lift, Carry	Dynamometer - Lifted mostly full container of antifreeze.	10.41
22	Notify supervisor regarding needed truck repairs	Lie Item	NA		
23	Clean and maintain equipment including interior and exterior of cab.	Yes	NA	Not measured.	
24	Remove debris from empty trailers.	Yes	NA	Not measured.	
25	For this task, please select "Constantly," "Required," and "Not Needed."	Attention Check	NA		
26	Install or remove special equipment, such as tire chains.	Yes	Lift, Carry	Scale - Placed chains (in bag) onto scale.	48.10
27	Perform emergency roadside repairs, such as installing light bulbs.	Yes	NA	Not measured.	

EXHIBIT 4

Job Observation Photos (selected)

Raise/Lower Grill Guard

Lift Hood (front)

Lift Hood (Side)

Crank Landing Gear (1)

Crank Landing Gear (2)

Open Trailer Door (1)

Open Trailer Door (2)

Dynamometer Placement – Climb into and out of Cab

Dynamometer Placement – Climb into and out of Cab

EXHIBIT 5

Schuster Physical Capabilities Survey

Introduction

Welcome to Schusters' Physical Capabilities survey.

Before continuing, please indicate whether you are in a safe location where you can complete this survey safely with minimal distractions or interruptions. *

- Yes - I am in a safe location
- No - I am not in a safe location

Unsafe Location

Page entry logic:
This page will show when: Question "Before continuing, please indicate whether you are in a safe location where you can complete this survey safely with minimal distractions or interruptions." is one of the following answers ("No - I am not in a safe location")

Stop working on the survey immediately. Please take this survey when you are in a safe location.

Thank you.

Employee ID

Instructions:

Items marked with a red asterisk (*) are mandatory. You may leave other questions blank if you do not know how to answer.

To go back, use the buttons at the bottom of the page. **Do not use the "Back" arrow on your browser** (may cause an error and require you to start from the beginning).

Introduction

Thank you for participating. This project is to assess the physical demands of your job. In particular, we are interested in level strength required to do the job. We estimate that the survey will take approximately **10 minutes** to complete.

3. In the past 12 months, what type of routes have you typically driven?

- Mostly long haul
- About the same long haul and short haul
- Mostly short haul

4. In the past 12 months, what type of trailers have you typically driven?

- Mostly refrigerated/frozen ("reefer")
- About the same refrigerated/frozen ("reefer") and non-refrigerated ("drive in")
- Mostly non-refrigerated ("drive in")

Instructions

Overview

In this survey, you will be asked several questions about tasks that might be part of your job**.**

This survey consists of two (2) parts:

Part A: Tasks Performed: You will be asked to rate the **frequency and importance** of tasks you may perform and the **role of muscular strength** in performing each task.

Part B: Environment: You will be asked about the **environment** in which the work is performed.

Instructions are given at the beginning of each part of the survey. **Please read all instructions carefully** before answering any questions.

If you have any questions or technical issues, contact Dustin Maneethai, (714) 584-7669 or DManeethai@thinkbrg.com.

Frequently Asked Questions

Frequently Asked Questions (FAQs)

To help you answer the following questions, please review the Frequently Asked Questions below.

Different drivers have different roles/specialties that require them to perform different work. How should I respond to the survey?

Answer all questions based on *your personal experience* as a driver for Schuster.

This job has changed over the years. What time period should I consider?

Respond to all questions based on the past 12 months.

The work I perform sometimes changes based on my specific assignment or customer. How should I respond to the survey?

Think broadly about the work you have performed in the past 12 months and respond based on what best represents that entire experience.

Part A - Instructions

PART A - Tasks Performed

In Part A, you will be asked to rate the frequency and importance of tasks you may perform in your job. For each task, please select the best response from each of the three sets of options below.

Frequency

How frequently do you perform this task?

Never: I have never performed this task

Rarely: I perform this task, but less than once per day

Occasionally: I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)

Frequently: I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)

Constantly: I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Required to Perform

How important is this task to the successful performance of your job?

Not Required: My job *can* be performed effectively if I were not able to perform this task. There would only be a *small problem* if this task cannot be performed effectively.

Required: My job *cannot* be performed effectively if I were not able to perform this task. There would be a *serious problem* if this task cannot be performed effectively.

Role of Muscular Strength:

The term **muscular strength** refers to the ability to lift, carry, push, or pull objects, including one's own body (e.g., as in climbing into trucks or trailers).

Rate the extent to which muscular strength is required to perform each task.

- **Not Needed:** Physical Strength is not needed to successfully perform this task. Having a high level of strength would make no difference in the successful performance of this tasks.
- **Helpful:** Physical Strength is helpful in successfully performing this task. This task could be performed without a high level of strength, although it would be considerably more difficult or time consuming.
- **Essential:** Physical Strength is essential to the successful performance of this task. Without a high level of strength, a driver would not be able to perform this task.

Please click below to begin Part A now.

Part A: Task Ratings

Part A Instructions: Please select the options below to indicate the frequency **and** required to perform **and** role of muscular strength for each task. For each task, please select the responses that best reflects your experience over the past 12 months. The rating scales are copied below.

Note. **There a several "instructional" items included in the list below that direct you to provide specific responses**. Please read the survey carefully and follow those instructions when you find them.

If you are completing this survey on a computer, you may need to scroll to the right to see all response options.

Frequency: How frequently do you perform this task? (Copied from prior page)

Never: I have never performed this task

Rarely: I perform this task, but less than once per day

Occasionally: I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)

Frequently: I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)

Constantly: I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Required to Perform: How important is this task to the successful performance of your job? (Copied from prior page)

Not Required: My job *can* be performed effectively if I were not able to perform this task. There would only be a *small problem* if this task cannot be performed effectively.

Required: My job *cannot* be performed effectively if I were not able to perform this task. There would be a *serious problem* if this task cannot be performed effectively.

Role of Muscular Strength: Rate the extent to which muscular strength is required to perform each task. (Copied from prior page)

The term **muscular strength** refers to the ability to lift, carry, push, or pull objects, including one's own body (e.g., as in climbing into trucks or trailers).

- **Not Needed:** Physical Strength is not needed to successfully perform this task. Having a high level of strength would make no difference in the successful performance of this tasks.
- **Helpful:** Physical Strength is helpful in successfully performing this task. This task could be performed without a high level of strength, although it would be considerably more difficult or time consuming.
- **Essential:** Physical Strength is essential to the successful performance of this task. Without a high level of strength, a driver would not be able to perform this task.

5. **Task Rating**

Rate the Frequency, whether you are required to perform, and the role of muscular strength for completing each task. For each task, please select the responses that best reflects your experience over the past 12 months.

Please read each task carefully. **There may be some tasks you do not perform, are not required to perform, or do not require muscular strength.** It is important that your response are accurate.

There a several "instructional" items included in the list below that direct you to provide specific responses. Please read the survey carefully and follow those instructions when you find them.

	Frequency	Required to Perform?	Role of Muscular Strength

	Never	Rarely	Occasionally (1-100 times/day)	Frequently (101-300 times/day)	Constantly (301+ times/day)	Not Required	Required	Not Needed	Helpful	Essential
Task: Secure cargo for transport, using load locks, or straps (depending on trailer).	○	○	○	○	○	○	○	○	○	○
Task: Load or unload trucks or help others with loading or unloading.	○	○	○	○	○	○	○	○	○	○
Task: For this task, please select "Never," "Not Required," and "Essential."	○	○	○	○	○	○	○	○	○	○
Task: Position or remove dolly stands.	○	○	○	○	○	○	○	○	○	○
Task: Position wheel chock.	○	○	○	○	○	○	○	○	○	○
Task: Read and interpret maps to determine vehicle routes.	○	○	○	○	○	○	○	○	○	○
Task: Drive truck to load or unload location.	○	○	○	○	○	○	○	○	○	○
Task: Climb into truck cab.	○	○	○	○	○	○	○	○	○	○
Task: Climb out of truck cab.	○	○	○	○	○	○	○	○	○	○
Task: Climb into trailer.	○	○	○	○	○	○	○	○	○	○
Task: Climb out of trailer.	○	○	○	○	○	○	○	○	○	○
Task: Raise or lower landing gear to safely secure vehicles.	○	○	○	○	○	○	○	○	○	○
Task: Open or close trailer doors and secure.	○	○	○	○	○	○	○	○	○	○
Task: Pull and release fifth wheel pin to unhook trailer from truck.	○	○	○	○	○	○	○	○	○	○
Task: Release trailer tandem locks to adjust	○	○	○	○	○	○	○	○	○	○

weight.										
Task: Position or remove air hoses between truck and trailer.	○	○	○	○	○	○	○	○	○	○
Task: Report delays that may impact delivery times.	○	○	○	○	○	○	○	○	○	○
Task: Conduct pre-trip vehicle inspections, including rasing/lowering grill guard, lifting/lowering hood, and checking fluids.	○	○	○	○	○	○	○	○	○	○
Task: Conduct post-trip vehicle inspections, including rasing/lowering grill guard, lifting/lowering hood, and checking fluids.	○	○	○	○	○	○	○	○	○	○
Task: Fuel truck.	○	○	○	○	○	○	○	○	○	○
Task: Perform basic vehicle maintenance tasks, such as adding oil, fuel, or radiator fluid.	○	○	○	○	○	○	○	○	○	○
Task: Notify supervisor regarding needed truck repairs	○	○	○	○	○	○	○	○	○	○
Task: Clean and maintain equipment including interior and exterior of cab.	○	○	○	○	○	○	○	○	○	○
Task: Remove debris from empty trailers.	○	○	○	○	○	○	○	○	○	○
Task: For this task, please select "Constantly," "Required," and "Not Needed."	○	○	○	○	○	○	○	○	○	○
Task: Install or										

remove special equipment, such as tire chains.	○	○	○	○	○	○	○	○	○	○
Task: Perform emergency roadside repairs, such as installing light bulbs.	○	○	○	○	○	○	○	○	○	○

Part A - Other Physical Tasks

Show/hide trigger exists.

6. Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?

- ○ No
- ○ Yes

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

Please tell us more about the other aspects of your job that require muscular strength.

First, describe the physically demanding task in the box below. Then, answer four questions about that task by selecting from the options below.

There is space provided to add up to five additional tasks.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

New Task 1

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

7. Task 1 Description

Enter Task Description

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

8. **Task 1 Frequency**

How frequently do you perform this task?

- **Rarely:** I perform this task, but less than once per day
- **Occasionally:** I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)
- **Frequently:** I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)
- **Constantly:** I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

9. **Task 1 Required to Perform**

How important is this task to successful performance of your job?

- **Not Required:** My job can be performed effectively if I were not able to perform this task. There would only be a small problem if this task cannot be performed effectively
- **Required:** My job cannot be performed effectively if I were not able to perform this task. There could be serious problems if this task cannot be performed effectively.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

10. **Task 1 - Importance of Muscular Strength**

Rate the extent to which muscular strength is required to perform each task.

- Not Relevant
- Helpful
- Essential

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

11. **Task 1 - Level or Amount of Muscular Strength Required**

What amount of muscular strength is needed to perform this task safely and effectively? In other words, how much force is required to lift or move the object?

- 0-6 lbs
- 7-12 lbs
- 13-21 lbs
- 22-35 lbs
- 36 or more pounds

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

If there are no more tasks to add, you can skip the rest of this page.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

New Task 2

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

12. Task 2 Description

Enter Task Description

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

13. **Task 2 Frequency**

How frequently do you perform this task?

- **Rarely:** I perform this task, but less than once per day
- **Occasionally:** I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)
- **Frequently:** I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)
- **Constantly:** I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

14. **Task 2 Required to Perform**

How important is this task to successful performance of your job?

- **Not Required:** My job can be performed effectively if I were not able to perform this task. There would only be a small problem if this task cannot be performed effectively
- **Required:** My job cannot be performed effectively if I were not able to perform this task. There could be serious problems if this task cannot be performed effectively.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

15. **Task 2 - Importance of Muscular Strength**

Rate the extent to which muscular strength is required to perform each task.

- Not Relevant
- Helpful
- Essential

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

16. **Task 2 - Level or Amount of Muscular Strength Required**

What amount of muscular strength is needed to perform this task safely and effectively? In other words, how much force is required to lift or move the object?

- 0-6 lbs
- 7-12 lbs
- 13-21 lbs
- 22-35 lbs
- 36 or more pounds

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

If there are no more tasks to add, you can skip the rest of this page.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

New Task 3

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

17. Task 3 Description

Enter Task Description

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

18. **Task 3 Frequency**

How frequently do you perform this task?

- **Rarely:** I perform this task, but less than once per day
- **Occasionally:** I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)
- **Frequently:** I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)
- **Constantly:** I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

19. **Task 3 Required to Perform**

How important is this task to successful performance of your job?

- **Not Required:** My job can be performed effectively if I were not able to perform this task. There would only be a small problem if this task cannot be performed effectively
- **Required:** My job cannot be performed effectively if I were not able to perform this task. There could be serious problems if this task cannot be performed effectively.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

20. **Task 3 - Importance of Muscular Strength**

Rate the extent to which muscular strength is required to perform each task.

- Not Relevant
- Helpful
- Essential

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

21. **Task 3 - Level or Amount of Muscular Strength Required**

What amount of muscular strength is needed to perform this task safely and effectively? In other words, how much force is required to lift or move the object?

- 0-6 lbs
- 7-12 lbs
- 13-21 lbs
- 22-35 lbs
- 36 or more pounds

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

If there are no more tasks to add, you can skip the rest of this page.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

New Task 4

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

22. Task 4 Description

Enter Task Description

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

23. **Task 4 Frequency**

How frequently do you perform this task?

- **Rarely:** I perform this task, but less than once per day
- **Occasionally:** I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)
- **Frequently:** I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)
- **Constantly:** I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

24. **Task 4 Required to Perform**

How important is this task to successful performance of your job?

- **Not Required:** My job can be performed effectively if I were not able to perform this task. There would only be a small problem if this task cannot be performed effectively
- **Required:** My job cannot be performed effectively if I were not able to perform this task. There could be serious problems if this task cannot be performed effectively.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

25. **Task 4 - Importance of Muscular Strength**

Rate the extent to which muscular strength is required to perform each task.

- Not Relevant
- Helpful
- Essential

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

26. **Task 4 - Level or Amount of Muscular Strength Required**

What amount of muscular strength is needed to perform this task safely and effectively? In other words, how much force is required to lift or move the object?

- 0-6 lbs
- 7-12 lbs
- 13-21 lbs
- 22-35 lbs
- 36 or more pounds

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

If there are no more tasks to add, you can skip the rest of this page.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

New Task 5

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

27. Task 5 Description

Enter Task Description

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

28. **Task 5 Frequency**

How frequently do you perform this task?

- **Rarely:** I perform this task, but less than once per day
- **Occasionally:** I perform this task daily, between 1 and 100 times per day (or less then 1/3 of day)
- **Frequently:** I perform this task daily, between 101 and 300 times per day (or 1/3 to 2/3 of the day)
- **Constantly:** I perform this task daily, more than 300 times per day (or more than 2/3 of the day)

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

29. **Task 5 Required to Perform**

How important is this task to successful performance of your job?

- **Not Required:** My job can be performed effectively if I were not able to perform this task. There would only be a small problem if this task cannot be performed effectively
- **Required:** My job cannot be performed effectively if I were not able to perform this task. There could be serious problems if this task cannot be performed effectively.

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

30. **Task 5 - Importance of Muscular Strength**

Rate the extent to which muscular strength is required to perform each task.

- Not Relevant
- Helpful
- Essential

Hidden unless: #6 Question "Are there any **other** aspects of your job requiring muscular strength that were **not covered on the prior page**?" is one of the following answers ("Yes")

31. **Task 5 - Level or Amount of Muscular Strength Required**

What amount of muscular strength is needed to perform this task safely and effectively? In other words, how much force is required to lift or move the object?

- 0-6 lbs
- 7-12 lbs
- 13-21 lbs
- 22-35 lbs
- 36 or more pounds

Part A-B Transition

You have completed Part A.

Click below to move on to Part B.

Part B - Environmental Factors

PART B - Work Environment

Last, we would like you to report the frequency with which each of the following **Environmental Factors** are encountered on the job. Please answer all questions based on the past 12 months.

32. How frequently is work performed in the following **environments**?

	Never	Rarely	Occasionally	Frequently	Constantly	I dont know
Indoor (e.g., inside a building, truck cab, trailer)	○	○	○	○	○	○
Outdoor	○	○	○	○	○	○

33. How frequently is work performed in the following **climate conditions**?

	Never	Rarely	Occasionally	Frequently	Constantly	I don't know
Above 85 degrees Fahrenheit	○	○	○	○	○	○
Below 32 degrees Fahrenheit	○	○	○	○	○	○
High humidity (i.e., above 70%)	○	○	○	○	○	○

34. How frequently is work performed in the following **weather conditions**?

	Never	Rarely	Occasionally	Frequently	Constantly	I don't know
Rain	○	○	○	○	○	○
Snow/Ice	○	○	○	○	○	○
Wind	○	○	○	○	○	○

35. How frequently is work performed in the following **locations**?

	Never	Rarely	Occasionally	Frequently	Constantly
Confined spaces (e.g., between truck and trailer, reaching under trailer)	○	○	○	○	○
Areas around moving or hazardous equipment (e.g., trucks, trailer, forklifts)	○	○	○	○	○
Areas at elevated heights (e.g., in cab, in trailer)	○	○	○	○	○
Uneven terrain (e.g., side of road)	○	○	○	○	○

You have reached the end of this survey. Please click below to submit.

Thank You!

The survey is complete!

Thank you for sharing your expertise.

EXHIBIT 6

Classification of Driver's Injuries as Muscular Skeletal Disorder (MSD)

Date	Accident Desc	Cost of Injury	Driver Passed Pre-Hire Test	MSD Classification
01/10/11	CLIMBING INTO TRUCK/ SLIPPED ON STEP OF TRUCK/ FELL/ SHOULDER, FOOT & SHIN STRAIN.	3,193.25	0	0
02/03/11	TWISTING CAP OFF FUEL TANK/ R HAND STRAIN.	1,863.41	0	1
02/23/11	WALKING OVER SNOW DRIFT/ SLIPPED & FELL/ RIB INJURY.	357.53	0	0
03/06/11	WALKING ACROSS PARKING LOT/ SLIPPED ON ICE/ L LEG FRACTURE.	72,584.86	0	0
03/15/11	CLIMBING OUT OF TRAILER/ LOST BALANCE/ FELL/ L WRIST FRACTURE.	6,636.53	0	0
05/02/11	SEAT BELT CAUGHT IN DOOR/ OPENED DOOR TO GET BELT/ FELL OUT OF TRUCK/ TRUCK ROLLED OVER ANKLE.	203,692.25	0	0
07/23/11	JUMPED OUT OF TRUCK THAT WAS ON FIRE/BACK STRAIN	85,667.43	0	1
08/22/11	FELL OUT BACK OF TRAILER TRYING SHAKE LOOSE SNAGGED SHOELACE/LOW BACK, LT KNEE, AND LT ANKLE	4,754.25	0	0
08/22/11	FELL OUT OF TRAILER ONTO HEAD	8,185.12	0	0
09/17/11	Struck by another vehicle/Unspecified injuries	10,751.41	0	0
12/17/11	Slipped and fell at truck stop/wrist fracture	0	0	0
01/23/12	Tow truck slid into his truck/knee, shoulder & back	1,680.56	0	0
02/10/12	Unloading/tailgating pallets foot slipped on mud causing strain to back of right knee	43,011.27	0	1
02/14/12	Slipped in trailer, fell down. back pain gradually/Back	644.74	0	0
04/20/12	Landed hard on feet when getting out of truck/low back strain	527.23	0	1
05/06/12	Climbing into truck, hand slipped.Over extended & felt a pop in calf/rt leg	2,229.75	0	0
05/19/12	In sleeper, high winds tipped truck & trailer on side/Rt wrist	19,086.73	0	0
09/25/12	On ladder washing trailor and fell/Abrasion to pancreas and ribs 6,7,8 broken.	13,664.85	0	0
10/18/12	Motor vehicle accident/Knee abrasions.	629.78	0	0
12/05/12	Motor vehicle accident, lost control and truck rolled over/Lt shoulder strain, abrasion, lower back	4,377.26	0	0
12/26/12	Slipped and fell getting out of truck/Tailbone strain.	4,169.30	0	0
01/17/13	Struck back while getting out under trailer/Herniated disk in back.	250,576.23	0	1
01/17/13	Getting out of truck, slipped off the bottom step and fell/Broken rt hip.	113,893.57	0	0
02/22/13	Pulling pallet/Rt knee strain.	7,861.93	0	1
03/21/13	Hanging onto door, pulled out of truck by wind/Knee strain.	9,428.78	0	0
04/17/13	Truck was blown over by wind burst or tornado/Lt shoulder strain and elbow and hand laceration.	16,402.00	0	0
11/06/13	Getting out of tow truck and slipped on the ice/strain arm, shoulder and back of head	51,569.54	0	0
11/09/13	Showering and knee gave out/Lt knee dislocation	315,489.31	0	1
12/18/13	Exiting truck, fell/Shoulder strain	0	0	0
01/16/14	MVA-Stopped on interstate for an accident, was rearended by tractor trailer/Neck	158.58	0	0
02/02/14	Side swiped a parked tractor trailer/strain neck	44,944.24	0	0
03/04/14	Slipped and fell on ice in parking lot of truck stop/contusion head & rt elbow	8,703.80	0	0
03/17/14	Getting out of truck and slipped and fell on snowy ground/contusion rt side of head & lt shoulder	31,778.42	0	0
08/26/14	Was at truck stop and truck was rolling away. Tried to get back into it and hurt knee/sprain rt knee	8,286.55	0	0
10/15/14	mva/sore multiple body parts	0	1	0
10/21/14	Cranking dolly legs/lump inside upper thigh	8.65	0	1

10/30/14	Sitting in seat of truck and got up to get into bunk and felt something pop/strain rt knee	35,042.22	0	1
01/15/15	Washing windshield on truck and was standing on tire and slipped and fell/contusion back	168.64	0	0
03/22/15	Walking through and opening and there was a step down and his foot caught a metal strip and he fell/	14,395.69	0	0
04/30/15	Tripped stepping off of curb/left wrist fracture & small finger sprain	5,627.28	0	0
09/28/15	Exiting truck and got foot caught on the seat belt and fell out of the truck onto ground/sprain shou	54,580.23	0	0
01/28/16	Getting out of truck and hand slipped off hand rail causing her to fall/rt. wrist fracture	31,682.35	0	0
03/17/16	Driving and wind caused tractor and trailer to roll/unknown injuries	24,611.35	1	0
01/11/17	Got out of truck, pulled on handle, lost balance & fell/Wrist fracture	46,748.82	0	0
03/05/17	Slipped & fell on on snow & ice / Neck & back strain	37,996.55	0	0
03/29/17	Rear-ended by another truck/Stiff neck	5,973.62	0	0
10/02/17	Pulling himself into cab of truck & felt pop/Rt shoulder strain	26,905.08	1	1
10/08/17	MVA/Cervical strain	9,708.16	0	0
11/29/17	Exiting truck, slipped on step catching herself & struck hip on step/Lt hip strain	109,633.35	1	0
03/23/18	EE was climbing ladder/ hip pain.	280,167.84	0	1
04/06/18	EE's trailer was hit by another vehicle while parked/ soreness.	257.34	1	0
06/28/18	Unloading windows and doors/ LT shoulder strain	98,712.70	1	1
11/18/18	MVA, EE rear-ended another vehicle/ head and back contusions	71,198.22	1	0
12/14/18	Cranked the dolly legs up/ RT side strain	124.56	1	1
01/04/19	A driver came up & punched EE/ Unknown injuries	12,927.18	1	0
02/08/19	Walking in parking lot & fell / Infection	0	1	0
02/11/19	MVA, scrapped along the guard rail/ No injury	22,749.30	1	0
02/17/19	Unknown injury/ blood clot	2,751.36	0	0
02/21/19	Unknown/Fatality	22,898.15	0	0
03/12/19	Walking to the back of trailer & slipped on ice/ RT ankle strain	58,591.72	0	0
04/20/19	Cranking dolly legs & pulling 5th wheel handle/Shoulder strain	10.15	1	1
05/03/19	Unknown/Unknown - vision issues - maybe related to diabetes	19,022.23	1	0
06/07/19	Pulling 5th wheel handle & it pulled back/Rt shoulder strain	2,422.07	0	1
07/12/19	Fell out of trailer while sweeping/Rt hand fracture	78,799.50	1	0
07/26/19	Couldn't find ground while getting out of truck and strained calf while pulling herself back up/LT c	32,224.41	1	1
07/30/19	Driving & object flew at windshield/Unknown injuries	0	1	0
08/26/19	Unloading product/Multiple body parts-strains	10.15	1	1
10/02/19	Cranking dolly legs/Rt arm & shoulder strain	458.63	1	1
10/07/19	Tripped over piece of re-bar & fell onto hands/Hand strain	36,387.27	1	0
10/07/19	Cranking dolly & felt a pop in stomach-possible hernia/Stomach hernia	48,725.18	1	1
10/30/19	Slipped & fell on ice & hit head on ground/Head contusion	12,025.00	0	0
12/03/19	Hit patch of black ice & flipped truck/Multiple physical injuries & body parts	64,671.44	0	0
01/07/20	Dolling down trailer/Lower back strain	15,350.00	1	1